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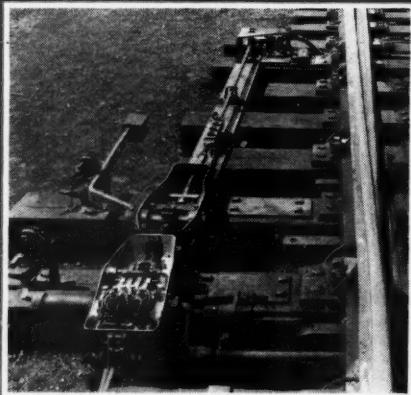
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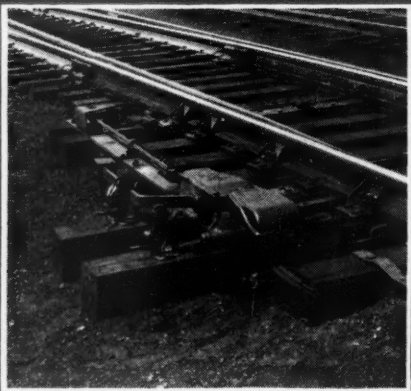
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## RAILWAY AGE

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# The Parade to Moscow

The authoritative spokesmen of the New Deal see clearly this country's present trend toward state socialism; know what is causing it, and that whether the ultimate result will be private enterprise or state socialism will be determined by whether or not this trend is reversed in the near future; and, consequently, are making the utmost efforts to accelerate the trend toward state socialism. On the other hand, the self-constituted spokesmen of American business see the trend, but do not apparently recognize what is causing it or that it must be completely reversed in all industries in the near future if all, or even any part, of private enterprise is to be saved; and consequently are doing nothing effective to save private enterprise.

Adolph Berle, from the beginning, and still, one of the principal New Deal brain trusters, recognizes and accepts the fact that we have already traveled a long way upon the road toward state socialism—and that, if we are to keep the socialism we have already, we shall have to accept more and more socialism. To be sure, he does not call his goal state socialism. Instead, his name for it is "increased wealth of the non-profit type"—but what he recommends is the investment of the people's resources in enterprises which consumers do not desire sufficiently to pay for adequately.

### Socialism Must Grow or Die

In a recent presentation before the Temporary National Economic Committee, Mr. Berle outlined his analysis of our present difficulties and his recommendations for a "way out." Pointing out that private capital is not going into industry at more than one-third to one-half the rate maintained in the decade up to 1930, he concludes that government must supplement the investment of private capital if economic stagnation and grievous unemployment are to be avoided. The details of his plan for government-guaranteed capital investment need not concern us here. The point is that he accepts the degree of socialism that we already have, and recognizes that, if we are going to retain what we have, we shall have to have more. Mr. Berle's theories are of vital importance because they plainly underlie the

New Deal's program for increased government spending and lending.

The distinction between Mr. Berle and the less thoughtful critics of the New Deal is that the latter naively assume that we can keep such socialism as we now have, without engulfing a major part of our economy in socialism. It cannot be done—and some of the so-called "janissaries" of the New Deal seem to be among the very few people in America intelligent enough to realize that it cannot be done. In particular, the self-constituted spokesmen for business in this country seem to assume that we can continue to provide transportation by highway and waterway largely at the expense of the taxpayers—and that the railways can "reorganize" or otherwise develop some miraculous hocus-pocus which will restore railway credit, railway employment, and railway purchases from other industry. Mr. Berle suffers from no such delusion.

### Why Railway Investment Has Ceased

No matter how efficient the railways may be, they cannot hold out to the investor the prospect of a safe and remunerative investment so long as there is no apparent limit upon the amount of tax funds which are going to be "invested" in highways and waterways. If highways and waterways were to be made self-supporting by levies upon their users to pay a return upon the investment in them and a tax-yield from that investment, then it would be relatively easy to calculate probable railway traffic and earnings, say, fifteen years hence; and, from such calculations, investment in railways would be renewed. But who can assert with any assurance that a toll-free St. Lawrence Seaway will not be in operation fifteen years hence, diverting huge tonnages of traffic from the railways? Who can assert with any assurance that fifteen years hence all our centers of population will not be connected by crossing-less and gradeless toll-free truck highways?

**What private investor would be enough of a sucker to put up money to take the kinks and grades out of a railway so long as Uncle Sam is "investing" an hundredfold more of taxpayers' money to take the**



**kinks and grades out of the highways and to deepen and straighten the waterways—for which service he exacts no proportionate fee from the beneficiaries?**

Of course, private investors are not such suckers. Their money is not being invested to improve railway service and efficiency, thereby restoring employment in private industry. Instead, it is being lent to the government to finance the New Deal's program of providing "increased wealth of the non-profit type."

The brains behind the New Deal are no more astute than those which determine the policy of organized business. But the brains of organized business are confused because so many business leaders desire to keep present socialistic policies by which they believe they are benefiting at the expense of everybody else, and, at the same time, to prevent extensions of socialistic policy by which they know they would be injured. The New Dealers, on the other hand, know exactly where all present socialistic policies, as well as the additional socialistic policies they advocate, are leading—namely, to an ever-widening sphere of "production for use and not for profit." In short, to state socialism or its equivalent. To quote further from the discerning Berle on this point:

In New York there are two bridges: the Brooklyn Bridge, which is free, and the George Washington Bridge, which is a toll bridge. The Brooklyn Bridge makes possible the free flow of traffic from one part of New York to another, and therefore adds to the wealth of the entire city, though it does not charge by the unit, and is supported out of the tax roll. The George Washington Bridge is owned by the Port Authority and pays its way by a standard charge collected from each passing car. It likewise assists the free flow of goods, though a different method of payment is used. It is absurd to say that the Brooklyn Bridge is not "wealth," merely because of this difference . . . Wealth is anything which satisfies a recognized need. The advance in technical, demographic and cultural development of the country has apparently brought to the fore recognized social needs with greater rapidity than before. Many, perhaps most, of these social needs cannot be handled on a "price per unit" basis; their cost must be paid by the community at large. . . .

Mr. Berle goes right to the heart of the current impasse in our economic policy-making in the above quotation. Under a true system of "free enterprise" (to which so many of our business spokesmen render lip service without understanding it well enough to believe in it) the kinds of "wealth" typified by the Brooklyn Bridge are reduced to a minimum, and the main emphasis is laid upon that typified by the George Washington Bridge. **There isn't any true freedom in an economic system which provides transportation or housing or some other economic service and forces the people to pay for it by taxation whether they want these particular facilities or not.**

#### **"Free Enterprise" Abandoned in Transportation**

Under a true system of free private enterprise—with every economic service standing on its own bottom of self-support—the citizen gets a vote on the kind of community he wants to live in every time he spends a

nickel. Nobody builds a rapid transit line into his neighborhood, and makes him pay for it even if he doesn't want it—for the simple reason that free private capital is not invested except where remunerative patronage is in prospect. In such an economy, people get the things they really want and not the things that some bureaucrat with the taxing power in his hands thinks they ought to have. The kind of country which Mr. Berle is advocating is one in which more and more of our "needs" are figured out for us by some government official—and we are forced by the tax-collector to fulfill these "needs" to the neglect of those that are our own preference.

Thus it is that a shipper might prefer to send his freight by rail—but, as a taxpayer, he is forced to contribute toward a subsidy of \$1,000 a year (as actual figures from Illinois have shown) to the operation of every heavy-duty truck anyhow. As a result—being forced to pay for a large part of the operating costs of a truck whether he uses it or not—he may be able to ship his goods by that method at only a slight additional expense, even though railway service would be cheaper and more attractive if both rail and truck service were on an equal footing of self-support. Under such conditions of inequality as between the railway and the highway, there can be but two alternatives—either "free enterprise" must be restored by exacting from highway users a charge proportional to their use of and the cost of the highways, or else the railways will have to go "on the dole" themselves under government ownership.

That, of course, is what we are heading for. And it will not stop with the railroads. As Mr. Berle says: **"I am frankly biased in favor of public ownership of certain forms of wealth"**—and in this connection he mentions **railroads, electric power, mineral resources** and adds: **"The government undoubtedly could mine and deliver ore from the Minnesota fields without difficulty. Conceivably, it could smelt the ore into steel."**

#### **Railroads Will Have Company in Their Misery**

So it is that the great industries (steel and coal and oil) which to a large degree have deserted free enterprise in transportation as represented by the railroads, in favor of socialized transport by inland waterways, are themselves "on the list" for socialization, along with the railroads and the utilities.

Utterly opposed as we are to socialism in any form, we nevertheless respect these New Dealers (and Mr. Berle in particular) for the clarity of their analysis of our existing economic situation and their recognition that our economy is no longer in the hands of "free enterprise"; that our system is so largely socialistic already that only socialistic measures can revive it, as long as so many, including some of the most powerful business interests, oppose abandonment of present socialistic policies, of which the practice of providing



highway and canal and other economic services at the cost of the whole people instead of those who want to use them, affords the best illustration.

What an amusing spectacle it makes! Down Pennsylvania avenue toward the Capitol march the White House "janissaries" bearing the banner of the hammer and sickle (slightly disguised). Following in parade immediately behind them stumbles (blindfolded) an assortment of stuffed shirts from the Chamber of Commerce of the United States. Next, of unctuously pious demeanor, stalks a delegation of nabobs from the National Highway Users' Conference. Then comes the doughty General Asburn, attended by a delegation from the Army Engineers and the Bureau of Public Roads; the Mississippi Valley Association and the Inland Water Petroleum Carriers Association en masse; an assortment of industrial traffic managers, leering cynically; and a motley crew of self-styled "spokesmen" for "agriculture" and "shippers," whose wages are actually paid by other persons. Finally, at the tag end of the procession, tread wearily such open-and-above-board Reds as Comrades Earl Browder and William Z. Foster, who are relegated to this ignominy because their efforts toward "production for use and not for profit" are so puny and insignificant by comparison with those of their predecessors in the parade.

#### Phoney "Conservatives"

Most of the marchers from industry wear G. O. P. labels in their lapels—but nobody except themselves is deceived thereby. Least of all do their alleged "conservative" leanings cause any tremors in the intelligent young men who guide the New Deal. They know that the "opposition" of such "conservatives" can easily be emasculated by a few hundred millions of additional highway or waterway expenditures.

Have we been over-imaginative in our portrayal of this fantastic parade? Go back to Mr. Berle's instance of the Brooklyn and George Washington Bridges—obviously the latter could not stay in existence beside the former, the toll-bearing in competition with the toll-free. Neither can private business revive and restore employment and prosperity while it remains subject to competition which does not have to pay its own way. Unless the business interests who are following the "Brooklyn Bridge" principle of transportation are prepared to forsake that principle—then the sooner the country adopts Mr. Berle's prescription for restoring investment under socialism, the better. If we are fed up with free enterprise and are determined not to give it a chance to function, then let us forsake it quickly.

#### Mugwumps in the Capitalist Camp

On the other hand, if we still have faith in free enterprise, then let's rid the capitalist camp of doubters, mugwumps and downright traitors. Both the mare and the donkey are fruitful, but not the hybrid jackass.

The National Association of Manufacturers has declared in favor of principles and policies necessary to rehabilitating and saving free private enterprise. It contains within its membership, however, important business interests that it is easy to show are practicing and endeavoring to cause continuance of socialistic transportation policies which obviously are injuring many of its members as well as promoting the trend toward state socialism in general. The same situation exists in the Chamber of Commerce of the United States and the National Industrial Traffic League; and there are other business organizations, including the National Highway Users Conference and the Mississippi Valley Association, which exist for the sole purpose of promoting socialism in transportation.

When will members of the National Association of Manufacturers, the Chamber of Commerce of the United States and the National Industrial Traffic League who are really opposed to all socialistic policies, begin to make a fight within these organizations that will either force them to take a stand for private enterprise in all industry or expose the fact that their members who are promoting state socialism represent only their own supposed selfish interests and not all business? **And when will business men who really favor private enterprise start a fight on business organizations such as the Mississippi Valley Association and the National Highway Users Conference which exist solely to promote socialism in transportation?** The New Dealers and their radical supporters not only know just what they want, but the right means for getting it, and that among their most effective supporters are their "fellow-travelers" among business interests who pretend to favor private enterprise but, at the same time, advocate just as much socialism as they believe will serve their own purpose. Business can make no headway against the trend toward state socialism as long as so many powerful business interests are actively promoting it.

## Orders in First Half

A doubling of locomotive purchases, a fair increase in freight car orders and a more substantial lift in passenger-train car buying marked the domestic equipment market in the first six months of the current year as compared with the first half of 1938. The carriers ordered 152 locomotives during the six months just passed, a little more than double the 75 units ordered in 1938's first half; the 9,077 freight cars purchased in the same period constitute a 13 per cent gain over the 8,024 ordered in the corresponding half of 1938; and the total of 135 passenger-train cars booked is 26 per cent greater than that of 107 cars recorded for the comparable period of 1938.

Orders for rail during the first half totaled 515,808 tons, or almost thrice the 188,252 tons ordered during the corresponding half of 1938.

## The Tax-Gatherer Versus the Owner

One of the principal reasons why the railway situation does not improve more is that taxes are taking a steadily increasing portion of the earnings left after paying operating expenses.

The following figures are for the first five months of the years mentioned:

In the five years 1925-1929, inclusive, the amount of earnings available, after operating expenses, for division between the railway companies and the tax collectors was 2,710 million dollars. Of this amount the companies kept 1,953 million dollars, or 72 per cent, and the tax collectors took 756 million dollars, or 28 per cent.

In the five years ending with 1934 the amount left for division was much smaller—only 1,497 million dollars. Of this the railway companies were allowed to keep 875 millions, or only 58 per cent, and the tax collectors took 622 million, or 42 per cent.

In the five years 1935-1939, inclusive, the total divisible declined further to 1,415 million dollars. Of this the railway companies kept less than 761 million dollars, or

54 per cent, and the tax collectors took over 654 million dollars, or 46 per cent.

The five years 1930-1934 included 1932 and 1933, usually considered the worst of the depression, while the five years 1935-1939 included 1936 and 1937, both considered years of "recovery." But it will be noted that in the last five years the railway companies, after paying their operating expenses, kept 115 million dollars *less* while the tax collectors took 32 million dollars *more*.

In the first five months of 1932 and 1933 combined, the tax collectors took 54.6 per cent of the earnings over operating expenses. But the "recession" years have been relatively still worse for the companies and better for the tax collectors, for in the first five months of 1938 and 1939 combined the tax collectors took 62 per cent and left the companies only 38 per cent. In the first five months of 1938 and 1939 combined the railway companies got 20 million dollars *less* than in 1932 and 1933 combined—when the New Dealers claim the nation was about at its last gasp—while the tax collectors took 52 million dollars *more*.

It formerly was an accepted theory that taxes should be based on ability to pay. This apparently has been abandoned in favor of the theory that the less the railways earn the more they should be taxed.

## What Will the Traffic Bear?—21

There is nothing novel about the idea of giving primary consideration to the density of a shipment, (i. e., the weight which may be loaded into a given space) in determining the rate to be charged for its transportation. Such a basis for charging is as old as transportation itself.

It was only during the period of railroads' supremacy over all other forms of transportation, amounting almost to a complete monopoly, that they were able to ignore without disaster this primary principle of cost determination. The present classification of freight came into being to meet a condition which has vanished.

The underlying principles of this classification were sound under the conditions existing when it was first made—though perhaps refinements and distortions of the principles have occurred which were unsound even when they were instituted. Now, however, motor transportation has largely overcome the cost advantages formerly enjoyed by the railroads, and this new competitor actually has the advantage in service on a great volume of the available traffic. It has greatly lowered the railroad price "ceiling."

**All of this evolution in transportation with a parallel and corresponding evolution in distribution has made the railroad freight classification an anachronism. It is about as much out of place as a suit of medieval armor would be in a modern war.**

The trucks with their more mobile units of great

adaptability, by picking up the shipment at the door of the shipper and delivering it at the door of the customer, have further jolted the equanimity of railroad freight classification makers and further out-moded their handiwork.

Not only do the trucks, operated as they are, under this out-moded railroad price ceiling, have the pick-and-choose advantage of as much as 100 per cent in price variation on traffic which loads for the same weight per cubic foot; but in addition it costs them but little more to pick up 10,000 lb. per stop than it does to pick up 1000 lb. or less, so the trucks prey upon the higher rated, volume traffic and leave the small-lot and lower-rated traffic for the railroads to lose their shirts on.

The continuation of this out-moded freight classification is largely responsible for a very large part of the trucks being on the highways today. The condition will continue to grow worse until the railroads revise their freight classification and prices to recognize the approximate cost of picking up, transporting and delivering a given quantity of a particular commodity.

There is no mystery about what the railroads need to do, because there has been sufficient experience developed for the railroads to know the approximate cost by truck for pick up and delivery, terminal handling and line haul service. **All that is needed is prompt, concerted, equanimous action by all the railroads. The stake is one-half billion dollars or more in revenue.**



# Additional Sleepers for the Denver Zephyrs

Two Budd-built cars without open sections contain a new type of single-occupancy room

**T**WO sleeping cars were recently delivered to the Chicago, Burlington & Quincy by the Edward G. Budd Manufacturing Company, Philadelphia, Pa., for use in the Denver Zephyr service. They involve an unusual combination of room and roomette facilities. Each is alike in arrangement and has a coupled length of 87 ft. 6 in., with a vestibule at one end only. There are no open sections. There are four roomettes at one end, four bedrooms (double occupancy), a compartment, a drawing room, and four chambrettes, each a single-occupancy room with folding bed.

## Interior Features

The cars are built of stainless steel throughout by the Budd Shotweld construction. Each car is carried on two four-wheel trucks of the double-equalizer, swing-hanger type designed for use in the Denver Zephyrs which are partially articulated trains. Neither car is fitted with draft gears or automatic couplers. The drawbar at each end of each car is attached at the rear by ball connection to a solid draft block, and the coupler consists of a bolting plate, the connection being made by four bolts in tension. Provision has been made in the underframe, however, for the future application of draft gears.

The bodies are insulated with Stonefelt, 3 in. thick in the walls and with a blanket varying from 3 in. at the sides to 2 in. at the center of the roof. In the under-floor, 1 3/4 in. of this material is used, except at the trucks where the thickness is increased to 4 1/2 in. In the ends, the thickness is 2 in. The partitions inside the car are also insulated with 3/4 in. of this material. The windows are fitted with Pittsburgh dehydrated double-glazed sash with shatterproof glass.

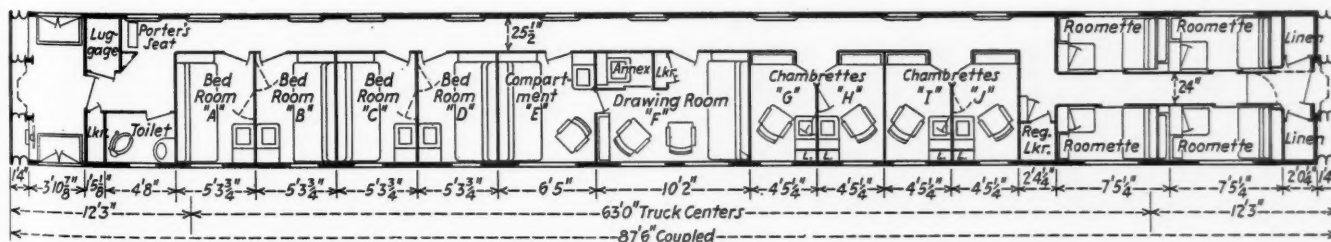
The arrangement of the various types of accommodations in the cars does not differ from that of the most recent Pullman developments, except in one particular; that is, the chambrette, which has been laid out so that it occupies a linear space on the floor plan intermediate between that of the roomette and that of the bedroom. It is a single occupancy room with the usual toilet and folding lavatory and a bed which folds into a recess in the corridor end of the room in lieu of the usual sofa which can be made up into a lower berth. For daytime occupancy this room is supplied with a folding chair similar to those in the drawing room. The width of the



Interior of the Bedroom Showing the Folding Shelf on the Communicating Door Raised—The Cabinet at the Corridor Partition Houses a Radio, a Facility which Is Installed in Each Bedroom, the Compartment and the Drawing Room

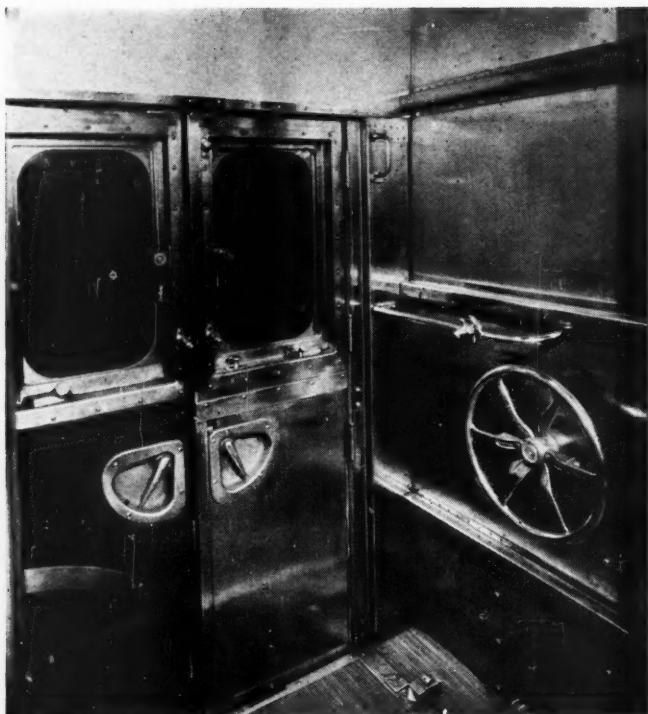
room (4 ft. 5 1/4 in. of longitudinal floor space) not being sufficient to permit a corridor door alongside the folding bed, the doors of adjoining chambrettes fold and open outward into a triangular corridor recess. The roomette is 7 ft. 5 1/4 in. long, there being one on each side of the center aisle; each, in effect, requires 3 ft. 8 5/8 in. The bedrooms, with transverse sofa and lower berth and transverse upper berth, are each 5 ft. 3 3/4 in. The compartment, with transverse sofa and lower berth and a longitudinal upper berth, is 6 ft. 5 in. long, while the drawing room, including the annex, is 10 ft. 2 in. long. There are a total of 21 berths in the car, with linen lockers, a toilet room, and a luggage locker.

Three color schemes are employed in the various rooms. Walls and ceilings are alike throughout, the former dark tan and the latter light buff. Throughout, the Chase Seamloc carpet, which is used in all of the sleeping rooms and corridors, is henna rust. The varia-



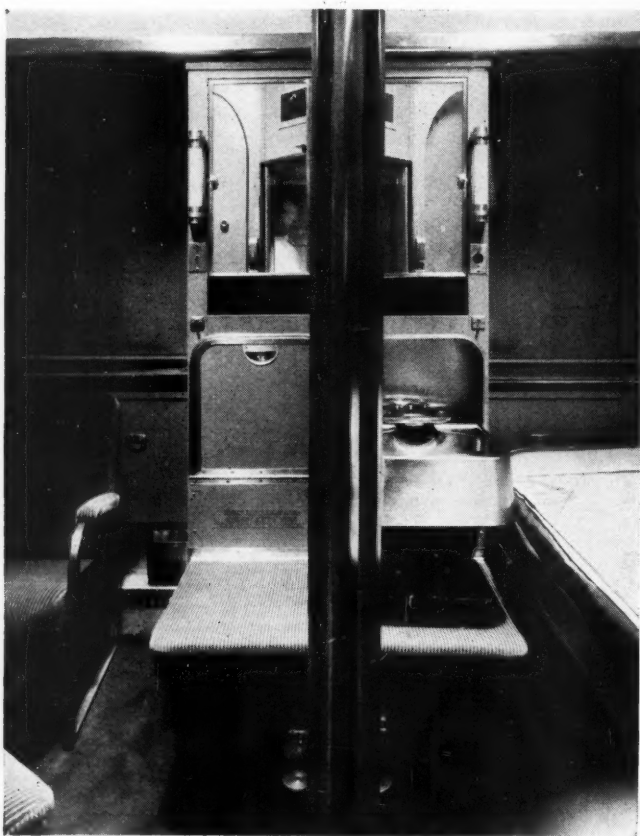
Arrangement of Facilities in New Sleeping Cars Added to the Denver Zephyrs





The Vestibules, Like Those in the Earlier Denver Zephyr Equipment, Are Closed with Double Doors—The Door at the Right Is Divided So That the Upper Half Can Be Opened Separately

tion is in the upholstery. In one of the roomettes, two bedrooms and the drawing room, it is in fawn; in two roomettes, two chambrettes, and the compartment, brown, and in the remaining accommodations, rust. The brilliantine drapes at the roomette doors are blue. The



Interiors of Adjoining Chambrettes Viewed from the Corridor Recess Outside the Open Doorways

Pantasote window shades throughout are silver on the outside, and the inside lining is a tan herringbone striped material.

#### Air Conditioning and Electrical Equipment

The cars are air conditioned throughout and each has a single Frigidaire 5½-ton compressor driven by a 15-hp. alternating-current motor. The cooling unit has a blower capacity of 1,800 cu. ft. per min. The two overhead blowers are driven by one 220-volt alternating current motor. The overhead unit also includes a heating coil with a capacity of 85,000 B.t.u. The air discharges into a main duct of about 200 sq. in. and is distributed in the



A View on the Corridor Side of Adjoining Chambrettes with the Partition Folded Back Over the Corridor Doorway of the Room at the Right

bedrooms, drawing room, compartments, and roomettes through Burgess multi-vent ceiling units, with manual control in each room. The recirculated air returns to the aisle through sight-tight grilles at the bottom of the aisle doors. The exhaust system comprises a unit blower with each room connected to it by a duct system.

The cars have the Vapor heating system with fin-tube type floor radiators and floor heat thermostats in each room. The overhead heat is controlled by a single thermostat control in the corridor at the middle of the car. All unexposed water piping, all steam piping, and the air-conditioning piping are soft drawn copper with sweated-on fittings.

The electrical system is designed for 220-volt, three-phase alternating current which is furnished from the head-end equipment of the Denver Zephyr trains. Ar-

(Continued on page 81)

View of a Portion of the Laboratory of the Denver & Rio Grande Western at Denver, Where this Railway Checks Materials Received to Determine Their Compliance with Specifications



## Checking Materials for R. R. Use

American Society for Testing Materials considered more than 110 technical reports and papers at its forty-second annual convention

**W**ITH upwards of 110 technical reports and papers presented before 22 sessions of the meeting, the forty-second annual convention of the American Society for Testing Materials, which was held at Atlantic City, N. J., on June 26-30, continued the tradition of intense activity that is characteristic of this organization. The total registration of 1,354 members and guests was the highest ever reached at meetings of the society at Atlantic City, and compares with an attendance of 1,150 at the 1938 meeting. It was, moreover, the second largest convention ever held by the society, the all-time high in attendance (1,525) having been reached at the meeting at New York in 1937.

During the five-day session 116 existing tentative specifications were approved for reference to society letter ballot for formal adoption as standard and 62 tentative specifications were acted on affirmatively. Similar action was also taken regarding many recommendations covering revisions in standards and tentative standards, the adoption as standard of tentative revisions of standards, and the withdrawal of standards. In several instances the usual routine of the technical sessions was given variation through the agency of symposiums and round-table discussions. Presented concurrently with the convention was the fifth exhibit of testing apparatus and related equipment, which included exhibits by several committees, and the second A. S. T. M. photographic

exhibit and competition having as its theme "testing and research in engineering materials."

This year the activities of the meeting were directed by T. G. Delbridge, president of the society and manager of the Research and Development department of the Atlantic Refining Company. In the election of officers H. H. Morgan, manager, Rail and Track Fastenings department, Robert W. Hunt Co., was chosen president, and G. E. F. Lundell, chief, Chemistry division, National Bureau of Standards, was elected vice-president.

One of the outstanding occasions at the meetings of the materials testing society is the presentation of the Edgar Marburg lecture, which was delivered this year by H. F. Moore, professor of engineering materials, University of Illinois, who is known in the railroad field for his work in connection with the joint rail investigation sponsored by the railroads and the manufacturers. Prof. Moore's lecture was based on a discussion of four types of structural damage, namely, elastic distortion, inelastic distortion, creep (which is continuing distortion) and fracture. He said that as knowledge of materials has increased fallacies have become apparent in the conception of the "elastic limit" as a law governing the reaction of materials under load, and that today it is realized that practically none of the assumptions underlying the use of this term is rigidly true.

The general subject of metals was considered at length



through the presentation of committee reports and papers during six general sessions of the meeting. Primarily because of its desire to have the steel specifications in as satisfactory form as possible for the 1939 book of A. S. T. M. standards, the Committee on Steel reported that its standardization activities had been carried forward on an intensified basis during the year. This committee made numerous recommendations regarding existing, proposed and tentative standards, many of them involving materials used widely by the railways. A partial list of the specifications involved in the committee's recommendations follows:

#### **New Standard Specifications**

Steel for Bridges and Buildings  
High Tensile Strength Carbon-Silicon-Steel Plates for Pressure Vessels (Plates  $4\frac{1}{2}$  in. and Under in Thickness)

#### **Revisions of Tentative Standard Specifications**

Heat-Treated Carbon- and Alloy-Steel Track Bolts (A 183—36 T)  
High-Strength Structural Rivet Steel (A 195—36 T)

#### **Tentative Revisions of Standard Specification**

Boiler and Firebox Steel for Locomotives (A 30—39)

#### **Adoption of Tentative Standard**

##### **Specifications as Standard**

High-Carbon-Steel Joint Bars (A 5—36 T)  
Quenched Carbon-Steel Joint Bars (A 49—36 T)  
Normalized Quenched-and-Tempered Alloy-Steel Forgings (A 63—38 T), as revised  
One-Wear and Two-Wear Wrought Steel Wheels (A 186—36 T), as revised  
Low-Carbon-Nickel Steel Plates for Boilers and Other Pressure Vessels (A 203—37 T)  
Carbon and Alloy-Steel Nuts for Bolts for High-Pressure and High-Temperature Service to 1100 F. (A 194—38 T)

#### **Revisions of Standard Specifications**

Open-Hearth Carbon-Steel Rails (A 1—36)  
Carbon-Steel Bars for Railway Springs (A 14—27)  
Silico-Manganese-Steel Bars for Railway Springs (A 59—27)  
Chrome-Vanadium-Steel Bars for Railway Springs (A 60—27)  
Carbon-Steel Bars for Railway Springs with Special Silicon Requirements (A 68—36)  
Helical Steel Springs for Railways (A 61—16)  
Heat-Treated Carbon-Steel Helical Springs (A 125—33)  
Elliptical Steel Springs for Railways (A 62—16)  
Heat-Treated Steel Elliptical Springs (A 147—35)  
Billet-Steel Concrete Reinforcement Bars (A 15—35; A. S. A. 50. 1—1936)  
Axle-Steel Concrete Reinforcement Bars (A 160—35)  
Multiple-Wear Wrought Steel Wheels (A 57—36), immediate adoption  
Steel Tires (A 26—16)  
Boiler Rivet Steel and Rivets (A 31—36)

#### **Withdrawal of Standard and**

##### **Tentative Standard Specifications**

Steel for Buildings (A 9—36; A. S. A. G 19—1936)  
Quenched-and-Tempered Alloy-Steel Axles, Shafts and Other Forgings for Locomotives and Cars (A 63—36)  
Quenched-and-Tempered Carbon-Steel Axles, Shafts and Other Forgings for Locomotives and Cars (A 19—36)  
Carbon-Steel Forgings for Locomotives (A 20—31 T)  
High Tensile Strength Carbon-Silicon-Steel Plates for Boilers and Other Pressure Vessels (Plates 2 in. and Under in Thickness) (A 149—38)  
High Tensile Strength Carbon-Silicon-Steel Plates or Boilers and Other Pressure Vessels (Plates over 2 to  $4\frac{1}{2}$  in., Inclusive, in Thickness) (A 150—38)

A new standard specification covering carbon-steel forgings was also submitted by the Committee on Steel, but this was withdrawn and will be resubmitted in August as a new tentative specification. Moreover, as

a result of action taken during the consideration of this report, a change is to be made in the consolidated specification for steel for bridges and buildings to provide requirements for structural bolts.

Other committee reports and papers on metals dealt with cast iron, wrought iron, ferro-alloys and the corrosion and fatigue of iron and steel. A progress report presented by the Committee on Cast Iron, discussed among other matters the consideration that is being given by the committee to changes in the specifications for car wheels, and to the preparation of revisions in the standard specifications for cast iron soil pipe and fittings. The results of an investigation to determine the influence of chromium on the oxidation resistance of cast iron was reported on in a paper presented during a session on iron. Data obtained in this investigation definitely indicate the percentage of chromium necessary at each temperature level to limit the total oxidation of cast iron. Also it was found that the carbon content of cast iron has relatively little effect on the oxidation resistance of the metal.

#### **Wrought Iron**

The adoption as standard of a number of tentative standard specifications was recommended by the Committee on Wrought Iron. Among these were included specifications for wrought iron plates, lap-welded and seamless steel and lap-welded iron boiler tubes, wrought iron rivets and rivet rounds and single and double-refined wrought iron bars. This committee also recommended the adoption as standard of tentative revisions of seven standard specifications. All its recommendations were approved.

The Sectional Committee on Standardization of Dimensions and Materials of Wrought Iron and Wrought Steel Pipe and Tubing, of which Mr. Morgan was chairman, reported that the revision of the American tentative standard specification for wrought iron and wrought steel pipe that was initiated in 1937 was consummated in 1938 by correspondence and that the revised standard has been transmitted to the American Standards Association for approval as an American standard. This committee also reported that two A. S. T. M. specifications for piping material were approved during the year by members of the committee and by the A. S. A. One of these was the standard specification for welded wrought iron pipe while the other was the standard specification for electric-fusion-welded steel pipe for high-temperature and high-pressure service.

Reporting on iron-base alloys of the corrosion-resisting type, the Committee on Iron-Chromium, Iron-Chromium-Nickel and Related Alloys, in addition to certain minor revisions of standards, recommended the adoption as standard of nine tentative standard specifications for chromium and chromium-nickel alloy steel castings, and of a specification for corrosion-resisting chromium-nickel steels (sheet, strip and plate), all of which were approved.

#### **Corrosion, Fatigue**

Extensive data obtained in the comprehensive atmospheric corrosion test program being conducted at 11 test sites throughout the country on specimens of farm field fencing and fence wire were incorporated in a report of the Committee on Corrosion of Iron and Steel, which was presented during a general session devoted to a consideration of fatigue and corrosion. Information regarding the condition of the specimens at the various test sites after  $2\frac{1}{4}$  years' exposure were included in the inspec-



tion data. This committee also recommended revisions in several standard specifications covering zinc-coated wire and wire products and in the three tentative specifications for electro-deposited coatings on steel, offered two new tentative standards and recommended the adoption as standard of three tentative specifications pertaining to zinc-coated (galvanized) products. These proposals were approved.

A progress report on the extensive laboratory tests that are being conducted by the Association of American Railroads to determine the fatigue strength of full-size railroad car axles was incorporated in a paper on the Fatigue Strength of Machine Forgings 6 to 7 in. in diameter. Another paper presented during the session on fatigue and corrosion described three types of large testing machines that have been designed for the purpose of making fatigue tests of structural units, such as joints, beams, columns and frames, under normal working loads.

### Concrete and Allied Materials

Two general sessions of the convention were devoted to the presentation of committee reports and papers dealing with cement, concrete, and allied materials. The report of the Committee on Concrete and Concrete Aggregates included, among other recommendations, proposals for the revision of the tentative standard test for soundness of aggregates by the use of sodium sulphate or magnesium sulphate, and revision of the standards (for immediate adoption) for making and storing compression test specimens of concrete in the field and for securing specimens of hardened concrete from the structure. This committee also recommended the adoption as standard of 13 tentative standards, including specifications for concrete aggregate and for light-weight aggregate for concrete, and of tests for sieve analysis of fine and coarse aggregates, for the yield of concrete and for the unit weight of aggregates for concrete. The recommendations of this committee were approved.

The report on concrete and concrete aggregates also embodied several papers, one of which was based on observations of the water vapor permeability of concrete, while another dealt with an investigation of methods for measuring the passage of water through concrete. In another paper that was presented during one of the sessions on concrete the results were given of a study made to determine the effect of cement content and cement fineness on the compressive strength, durability and volume change of concrete made with lean mixes. Still another paper presented the results of tests made for the purpose of determining the effect of permitting weak solutions of acetic and lactic acids to flow over concrete and mortar, while still another comprised a discussion of the effect of variations in methods upon the results of freezing-and-thawing tests on mortars. The latter paper, which was based on a series of tests, contained data which seemed to indicate that while the destructive effect of freezing may be proportional to the rate of cooling, the effect of heating may be more nearly inversely proportional to the rate at which the temperature is raised. The Committee on Cement offered for publication as tentative a method for determining the soundness of Portland cement by the autoclave test, but this proposal was rejected.

Freezing-and-thawing tests in general came in for more thorough consideration during a round-table discussion of this subject, the primary purpose of which was to determine whether any organized work should be undertaken by the society in this field. In the past various committees have given consideration to the possibility of developing standard test procedures for specific

materials and, in view of the interest evinced in these tests, and because of a number of moot points that would require attention, it was pointed out that such organized work might be warranted.

### Ceramic and Masonry Materials

One of the general sessions of the meeting was devoted to committee reports and papers dealing with ceramic and masonry materials. Included in the report of the Committee on Manufactured Masonry Units, which was presented at this session, were a number of recommendations regarding standard specifications, all of which were approved. This committee offered a new tentative standard for solid-load-bearing concrete masonry units and recommended revisions in the tentative standards for sewer brick (made from clay or shale), for building brick (also made from clay or shale), and for glazed building units. It also recommended revisions in two standards and the adoption as standard of four tentative specifications, including one for concrete masonry units for use in the construction of catch basins and manholes and another for hollow non-load-bearing concrete masonry units.

Appended to the report on manufactured masonry units was a paper dealing with the disintegration of face brick by crystallization of soluble salt. This paper recounted the results of an investigation made to determine the cause of disintegration of the face brick in a building only a few years old. These results indicate, according to the paper, that the observed weathering was not due to frost action but to the formation of crystals of calcium sulphate on and just underneath the exposed face of the brick. The Committee on Mortars for Unit Masonry presented for publication as tentative new specifications for aggregate for masonry mortar which were accepted.

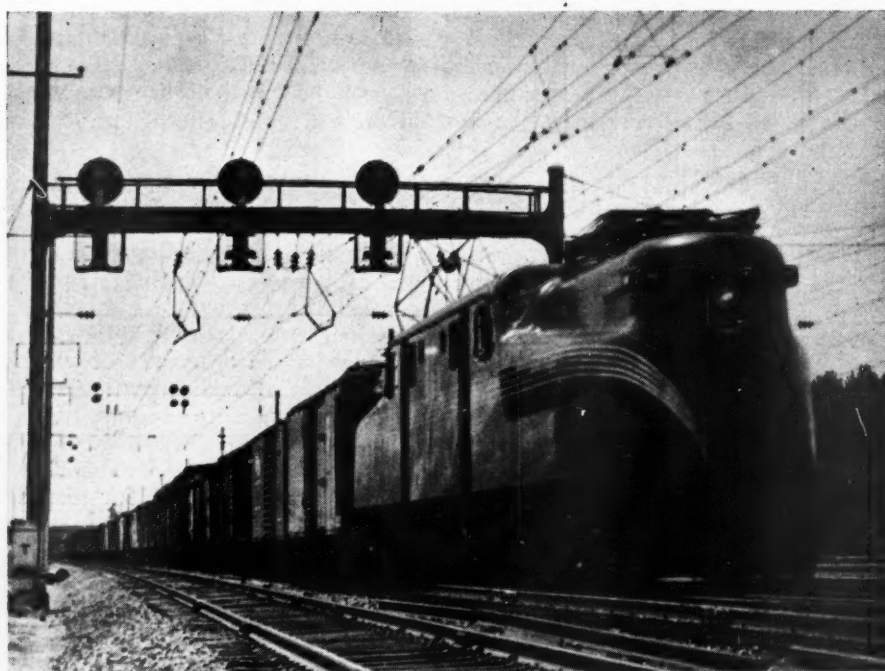
### Soils Receive Attention

In recognition of the increasing importance of the science of soils in engineering an entire session of the meeting was devoted to this subject. Action recommended by the Committee on Soils for Engineering Purposes (which was approved) included the adoption as standard of the seven existing tentative methods of testing soils. The report of this committee also included as information three new methods of testing soils, which cover procedures for determining the moisture density relations of soil-cement mixtures, a test for the durability of compacted soil-cement mixes by repeated freezing and thawing, and a test for the stabilization of soils with emulsified asphalt. In order to bring before the engineering profession the most recent developments in the shear testing of soils and to provide those interested in the problem with an opportunity to discuss and coordinate their ideas, the Committee on Soils for Engineering Purposes sponsored a symposium on this subject which involved the presentation of six papers.

Several recommendations pertaining to roofing materials were incorporated in the report of the Committee on Bituminous Waterproofing and Roofing Materials, which included the presentation of a tentative specification for asphalt mastic for use in waterproofing, which represents a consolidation of three existing specifications, and a new tentative procedure for accelerated weathering tests on bituminous materials. This committee also recommended revisions in the tentative standards pertaining to woven cotton fabrics saturated with bituminous substances for use in waterproofing and to asphalt

(Continued on page 72)

# Speed M



The Pittsburgh-New York Overnight Merchandise Train West of Harrisburg by

## Pennsylvania finds its fast Pittsburgh-New York service brings traffic

ON June 3, 1935, the Pennsylvania inaugurated overnight freight service between Pittsburgh and New York, and intermediate points, a distance of nearly 450 miles, by means of two fast merchandise trains—L. C. L.-1 from New York to Pittsburgh, and L. C. L.-2 from Pittsburgh to New York. The original set-up provided for trains of 40 to 50 cars in each direction, but in the three years of operation the traffic offered has grown far beyond the original expectations. The westbound train now runs in two sections, one from New York averaging 50 to 60 cars, and another from Philadelphia with from 90 to 100 cars. The eastbound train averages between 60 and 75 cars. These trains average better than 30 miles per hour, including all stops.

The speed and regularity of this service are brought about by maximum use of the "zone station plan," as developed on the Pennsylvania, reducing to a minimum the number of points where the trains stop to pick up or set off cars. Less-than-carload traffic to and from intermediate points is handled by line motor units to and from the zone stations, providing these smaller communi-

ties with the same service and transit time furnished the larger communities, and, as a result, the train runs for long distances without a stop. For example, it makes no stops between Harrisburg and Altoona, Pa., a distance of 131 miles.

### The Westbound Operation

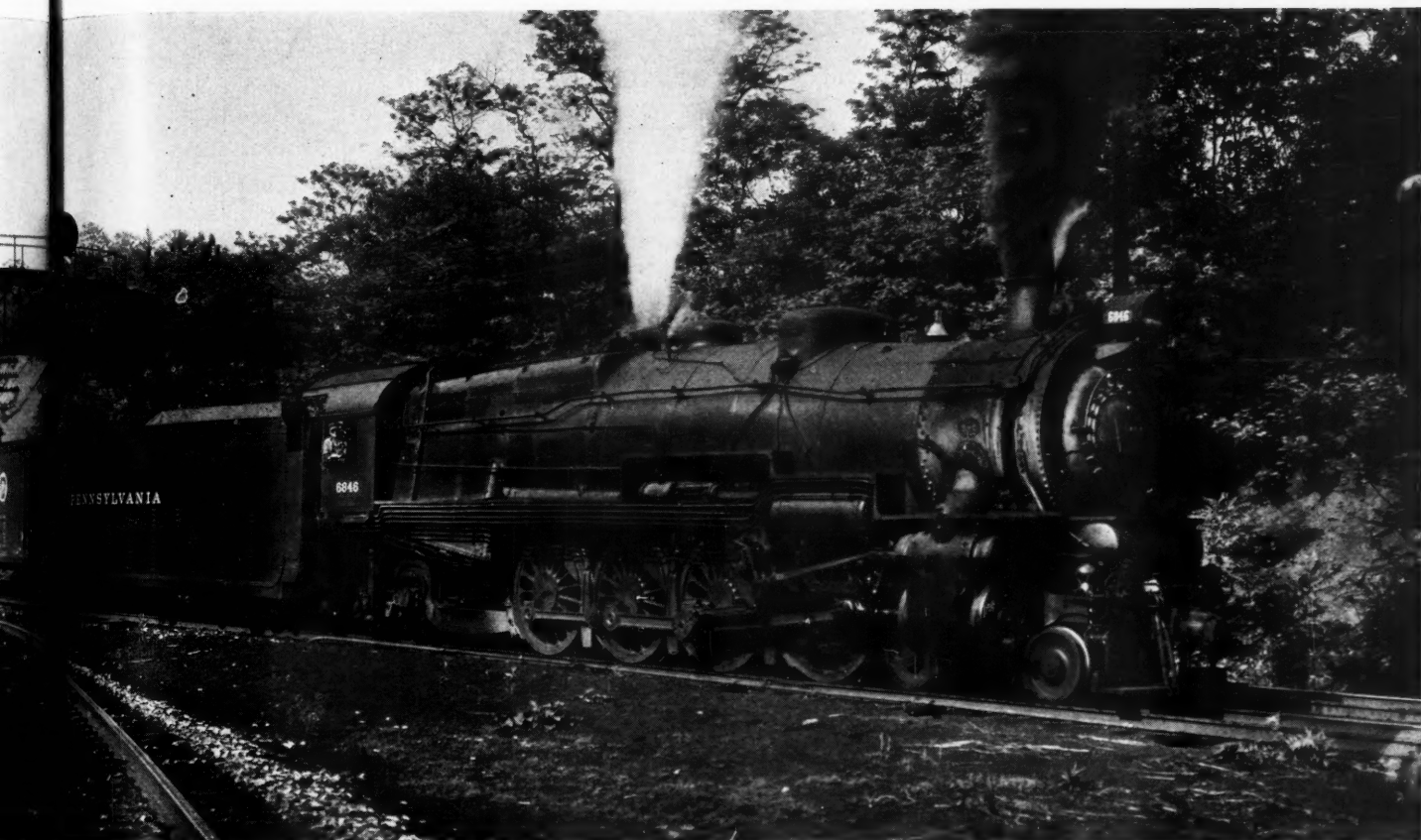
Less-than-carload traffic for the New York-Pittsburgh section of L. C. L.-1 is concentrated at Desbrosses Street station (Pier 30, North river) New York, the Pennsylvania's zone station in that city. It is brought to the station by shippers' trucks, by pick-up trucks of the railroad which cover all sections of New York city and Brooklyn, and in motor trailer equipment from Long Island City and other stations of the railroad in New York and Brooklyn, thus affording the same service to all patrons, regardless of location.

The merchandise is then loaded into cars on floats, 18 classifications being scheduled to move on L. C. L.-1. Extraordinary precautions are taken to see that traffic moves on the day it is offered to the railroad, and the classifications are arranged to provide a maximum service with a minimum number of handlings.

Promptly at 5:45 p. m., the lines are cast loose and tugs move the floats to Harsimus Cove yard, Jersey City,



## ed Means More Merchandise



Overnight Merchandise Trains Are Handled by  
Harrisburg by Electric Power East

where the train is made up with the cars from Desbrosses street as well as from 37th street, New York, and from Jersey City and Newark freight stations, the latter also being a zone station. The train is then dispatched via the freight tracks through Jersey City, avoiding the Newark passenger terminal, operating via the main line from Waverly to Trenton, where it picks up Trenton cars, after which it runs over the Trenton cut-off, a high-speed electrified freight line, which avoids the congested Philadelphia and Lancaster areas and brings the train over minimum grades into Enola Yard, across the Susquehanna river from Harrisburg.

At Enola, cars are set off for and picked up from the zone station at Harrisburg and zone stations north and south (Williamsport, York, Baltimore) and a change is made from electric to steam locomotives. Only 45 min. is allowed from the time the train passes the east tower at Enola until it passes the west tower, and this schedule is made regularly. Similarly, only 45 min. is allowed at Altoona for picking up and setting off cars and changing engines and crews. The train arrives at Pittsburgh at 8:40 a. m.

The Philadelphia section starts from Federal Street freight station, Greenwich, where, with a closing hour of 6:30 p. m., there has been a similar concentration of less-than-carload traffic, except that the Philadelphia cars in-

clude traffic from points within an approximate 35-mile area, brought in from stations and communities by line haul motor units, again furnishing zone station service to smaller communities. The train then operates to 52nd Street yard, where cars from Philadelphia Transfer are picked up. Philadelphia Transfer is the serving transfer for the eastern section of the railroad, and is one of the two Pennsylvania stations devoted entirely to the transfer of freight, all other transfers being discontinued or consolidated with zone stations in the interest of improved service and minimized handling. The other transfer is located at Pitcairn, 14 miles east of Pittsburgh.

The train leaves 52nd Street, Philadelphia, at 9 p. m., and after stops at Harrisburg and Altoona, arrives in Pittsburgh at 9:10 a. m. Some 45 cars from the two sections are consolidated at Pittsburgh and operate west as a continuation of L. C. L.-1, leaving Pittsburgh at 11:45 a. m., and arriving at Crestline, Ohio, at 6:45 p. m. In addition to cars set off at Canton and Mansfield, Ohio, on the afternoon following shipment from New York and Philadelphia, enroute to Crestline, connections are made at the latter point, providing second morning delivery on this merchandise to western destinations such as Toledo, Ohio; Cincinnati, Columbus, Grand Rapids, Mich., and Detroit.

Upon arrival at Pittsburgh, cars are immediately



placed at the 11th Street freight station and promptly unloaded. The railroad's delivery trucks are standing by and traffic for metropolitan Pittsburgh in delivery service is dispatched immediately to the consignee's door. Traffic for destinations within an approximate 35-mile radius is dispatched by line motor units to the destination station or direct to the consignee's residence or place of business. If in delivery service, and delivery is not made direct by the line haul truck, delivery is made by local truckmen with whom the railroad has contracts. Freight with other Pittsburgh stations as destination, not in delivery service, is trucked promptly to the destination station, usually in motor trailer service, where it is available to the consignee the day of arrival in Pittsburgh. Similar service is, in the meantime, being performed at all intermediate zone stations.

### The Eastbound Operation

L. C. L.-2, eastbound, is operated on a similarly fast schedule, and consists of merchandise from the west and from the Pittsburgh district. The 11th Street freight station is the zone station or concentration point for this traffic, and the concentration takes place as described for New York, except that the line haul trucks, which moved freight to the smaller surrounding stations in the morning, are now operating in the reverse direction, bringing the day's traffic originating within the zone into Pittsburgh for dispatch from the zone station in through cars, while the terminal trucks that made delivery of the morning traffic have been engaged in picking up traffic at consignors' places of business and moving it to the 11th Street freight station for similar dispatch.

The train leaves Pittsburgh at 6 p. m., stops at Pitcairn to pick up cars from Pittsburgh Transfer, which, as already indicated, operates similarly to Philadelphia Transfer and serves an equally large area, except that it handles a large number of ferry cars loaded at the various steel mills, thus affording expeditious handling of traffic originating throughout the Pittsburgh area. It is the gateway to and from the west for stations not having sufficient tonnage for through cars, trains from the west being so scheduled as to take advantage of the fast service provided by L. C. L.-2 whenever possible.

The train includes in its consist cars for Altoona, Harrisburg, Trenton, Newark, Jersey City and New York, and leaves Pitcairn at 7 p. m., with stops of less than an hour at Altoona and Enola for picking up and setting off cars and changing crews. It arrives at 52nd Street, Philadelphia, at 6 a. m., sets off an average of 35 cars for the Philadelphia area, and arrives at Harsimus Cove at 8:45 a. m., whence cars are floated to Desbrosses Street for unloading and distribution.

### Reliable Service

L. C. L.-2 and both sections of L. C. L.-1 change crews and engines at Enola and Altoona. Between Enola and Philadelphia and New York, the trains are handled by electric locomotives, usually by two of the P5 type and occasionally by a single locomotive of the GG-1 type. Between Harrisburg and Pittsburgh, a steam locomotive of the Class M-1 type handles each train without double-heading, although customary helper service is provided on the westbound trains from Altoona to the summit at Gallitzin.

The service was designed and developed in accordance with shippers' specifications for the purpose of relieving the shipper and receiver of all details in connection with their shipping problems, to the end that their less-than-carload traffic, both inbound and outbound, should be

handled between shipping platform and receiving door in good condition, and by a fast dependable service. The overall speed is attained without particularly fast running, but rather by a steady unbroken run between terminals, made possible by a modern system of gathering and distribution of intermediate traffic by a motor truck service supplementing the zone station rail service, and speedy handling of the trains at terminals.

## Checking Materials for R. R. Use

(Continued from page 69)

for use in constructing built-up roof coverings. Tentative revisions were also recommended in the standard specifications for coal-tar saturated roofing felt for use in waterproofing and in constructing built-up roofs, and in the specification for asphalt-saturated asbestos felt for use in constructing built-up roofs. All these recommendations were approved.

Among other committee reports of direct or indirect interest to railway men were those of the committees on Paint, Varnish, Lacquer and Related Products; Water for Industrial Uses; Research on Boiler Feedwater Studies; Fatigue of Metals; Coal and Coke, Classifications of Coals; and Timber. The latter committee, of which Dr. Hermann von Schrenk was chairman, recommended a revision of the tentative standard test for tar acids in creosote and creosote-coal-tar solutions, a revision of the standard test for distillation of creosote (immediate adoption) and the adoption as standard of the tentative standard specifications for zinc chloride. These recommendations were acted on affirmatively.

\* \* \*



The Feasibility of Playing Billiards on a Fast-Moving Train Was Demonstrated Recently on the Chicago & North Western's "Viking" by Charles Peterson, Fancy Shot Expert. Here He Contemplates a Tricky Three-Cushion Shot in the Combination Club and Buffet Car

# Accountants Hear About Transport Equality Movements

Howe, Sherrington and Bunnell, speakers at Toronto meeting,  
discuss developments in Canada, Great Britain  
and United States

**E**MPHASIZING the accounting officer's broader role of "physician with his finger on the pulse of the patient," member-road representatives attending last week's Toronto, Ont., meeting of the Association of American Railroads' Accounting Division carried out a program wherein the usual consideration given technical accounting-department problems was overshadowed by discussions of such general problems as equitable transport regulation and railway rehabilitation. The broad keynote of this forty-ninth annual meeting was sounded by Chairman T. F. Darden, vice-president of the Atlantic Coast Line, when he stressed the "duty" of all railroad men to keep abreast of "fundamental changes" that are taking place in the transport field; and by E. H. Bunnell, vice-president of the A. A. R. in charge of its Finance, Accounting, Taxation and Valuation Department, whose address supplied the above analogy to the physician, and who asserted that each railroad man has a part to play in finding a proper solution to the present transport problem.

Final registration figures showed that 617 persons attended the four-day meeting which was held in Toronto's Royal York Hotel, the first day—June 26—being devoted to committee meetings and the three subsequent days to the general sessions. Among the 617 registrants were 256 representatives of member roads, five honorary members, 22 representatives of government departments and 334 members of families and guests. At the election held on June 29, J. W. Newell, chief accounting officer of the Wabash, was elected chairman to succeed Mr. Darden. Mr. Newell had been first vice-chairman, the position to which T. H. Seay, comptroller of the Southern, was advanced from the second vice-chairmanship. The latter was filled with the election of G. T. Carmichael, comptroller of the New York, New Haven & Hartford. E. R. Ford continues as secretary. White Sulphur Springs, W. Va., was chosen as the place for the 1940 convention to be held at a time selected by the committee on arrangements.

In addition to Chairman Darden and A. A. R. Vice-President Bunnell, the principal speakers were Hon. C. D. Howe, Minister of Transport, Dominion of Canada; and C. E. R. Sherrington, secretary, Railway Research Service, London, Eng. Thus did the meeting bring together authoritative discussions of transport developments in three countries. Mr. Howe, as he put it, spoke "somewhat informally about our Canadian railways;" Mr. Sherrington's paper included, among other topics, an exposition of the present "Square Deal" campaign, reflecting the mature British idea of establishing equality in the transport field by freeing the railroads from restrictions not applied to their competitors; while Mr. Bunnell's comprehensive treatise on the evolution of transport and its regulation in the United States embodied a recognition of political realities precluding a

solution on the British pattern and thus called for the establishment of equality by applying the same type of regulation to all transport agencies, including the private truck.

Other speakers included Mayor Ralph C. Day of Toronto, who extended a welcome on behalf of the city; E. A. Leslie, comptroller of the Canadian Pacific and chairman of the committee on arrangements, who also welcomed the delegates and expressed his committee's gratitude to firms exhibiting accounting equipment "for their important contribution to the convention arrangements;" M. R. Reed, member of the Railroad Retirement Board, who gave a brief up-to-date summary of the Unemployment Insurance Act situation; Major J. P. Tillman, Finance Department, Transportation Branch, United States Army, who offered specific suggestions for cooperative action in the interest of expediting settlement of railway bills passing through his office; and Robert S. Henry, assistant to the president of the A. A. R., who stressed the key-man role of the individual railroad employee in the job of getting the facts about the transportation situation to all the people.

Also, among the guests at the meeting were Frank S. Fowler, and C. D. Crandall, director and assistant director, respectively, of the Interstate Commerce Commission's Bureau of Accounts; Arthur F. White, assistant director of the Bureau of Statistics; and R. A. Lacey, head auditor property changes, Bureau of Valuation. Mr. Fowler brought along a letter from Commissioner Joseph B. Eastman, who was unable to accept Mr. Darden's invitation to attend, but who sent his "greetings and good wishes" to the Division which "is doing much constructive work." Mr. Eastman went on to discuss the new emphasis on cost-finding in the transport field, and to express the hope and belief that "we shall be able to work with you cooperatively on it."

## Howe Discusses Canada's "Agreed Charges"

Introduced by T. H. Cooper, comptroller of the Canadian National, Canada's Minister of Transport Howe first referred briefly to the railway set-up in the Dominion with its two principal systems extending from coast to coast—the privately-owned Canadian Pacific having a mileage of some 18,000 miles, and the publicly-owned Canadian National about 24,000 miles. The former, Mr. Howe added, "has had a wonderfully successful history since its inception;" while the latter, he believes, "is operated as well as its competitors on this continent." After next giving a highlight review of the C. N. R.'s organization and financial history and the evolution of its present board of directors, the Transport Minister came to his discussion of the problem of regulation in the transport field. Because Canadian highways are the property of the Provincial governments, he explained, "it



was not considered feasible to regulate highway traffic, much as it might be desired;" but the Canadian Transport Act of 1937 did bring carriers on inland waterways and air transport under the regulatory authority of the Board of Transport Commissioners, which was the name given by the new legislation to what had previously been the Board of Railway Commissioners.

With the highway operators left unregulated, Mr. Howe went on, it was considered "that a further step could be taken to somewhat relax the restrictions that were hampering the railways in competing for business, in competition with unregulated carriers." In the search for this further step the Canadian government came upon Great Britain's "agreed-charges" idea and embodied in the above-mentioned 1937 act provisions authorizing the railroads to enter such agreements with shippers. These agreements, Mr. Howe explained, must not be discriminatory, i. e., an "agreed-charges" contract made with one shipper must be available to other shippers under similar circumstances and with similar provisions; also, the "agreed charges" are made by the Railway Association and not by the individual railways, thus precluding their use in competition between railroads. While he thinks it is too early "to estimate the benefits or otherwise of the 'agreed charges,'" the Minister of Transport does feel that such arrangements "will become an important part of rate-making." Only two agreements have thus far been executed in Canada, but Mr. Howe called them "important contracts covering a large area of Canada and very important commodities."

#### Compulsion Doesn't Speed Co-ordination

Coming to the subject of co-operation between railways, the Minister of Transport told of the "excellent" situation in that connection in Canada. He is not sure that the situation has been improved by legislation making it compulsory for the railways to co-operate. Such legislation, he explained, "put co-operation between our railways on a much more formal basis; certain patterns were laid down as to the form that co-operation should take; that there must be an equal division of the burden and advantage, and various other provisions. The results have been, I think, that the various co-operative measures which preceded legislation were quite as effective as the more formal co-operation subject to legislation. However, our railways are endeavoring to see that no longer will two railways be maintained where one will meet the situation; and they are co-operating in various ways in the mutual reduction of operating expenses."

Taking note of the "great deal of agitation that we should go much further," Mr. Howe told how Canada, like the United States, has learned by experience that "once a railway is built, it is not easy to tear up." He thinks it is "inevitable" that Canadian roads should have a low density of traffic, and that "there should be many parts of our railway system unable to obtain sufficient traffic to pay operating expenses." Hearing from many people, who, "in theory" would tear up these unprofitable lines, the Minister of Transport has found, "in practice," that "one simple method of curing the enthusiasm for tearing up lines was to take the district from which the demand was largely coming, and tear up a few miles of its lines—that generally ends that demand."

In closing Mr. Howe told of his inability to believe that "the railways will in the long run become anything but a major factor in transportation on this continent." Having on their side the "fundamental advantage" of being able to move a ton of freight one mile cheaper

than can be done by any other agency, save the bulk carriers on the Great Lakes, he believes there is "enough genius in the railway industry to bring it back to a position of reasonable prosperity." He is not too optimistic about passenger traffic, but even in that connection he thinks travelers are finding that the railways offer "a more comfortable ride for long distances" than can be had by private automobile or "public motor conveyance." Meanwhile Mr. Howe wonders if something should not be done in the way of a revision of the railway freight rate structure, which he understands "was built up largely to meet water competition." It seems to him that "it could be reviewed very well at this time, to see whether it is the best possible form of structure to meet the forms of competition by road and air."

#### Sherrington Tells of Britain's "Square Deal"

Speaking on "Transport Conditions in Great Britain and the Railways' Campaign for a 'Square Deal,'" Secretary Sherrington of the British Railway Research Service first reviewed briefly post-war railway developments in Great Britain, including the evolution of regulatory policy and amalgamations under the Railways Act, 1921, and the more recent extension of pooling arrangements. From such background-building he proceeded to his discussion of "agreed charges" and the current "Square Deal" campaign. The former, Mr. Sherrington said, have "met with conspicuous success," while the "Square Deal" recommendations of the Transport Advisory Council, composed of representatives of all interested parties, have been accepted "in principle" by Great Britain's Minister of Transport, such acceptance sustaining the hope for early enactment of legislation to sweep away "some of these outworn restrictions" and open "a new era" for the railways.

Leading up to his discussions of "agreed charges" and the "Square Deal" campaign, Mr. Sherrington told how the British railways had achieved about all savings which were possible from consolidations and co-ordinations, or pooling arrangements. Beyond labor's desire for complete nationalization of all transport facilities, he said in the former connection, "it cannot be claimed that there is any demand from considered railway opinion for a further welding of the four railways into one large group;" while British railways "have carried the policy of pooling competitive receipts about as far as the policy can go."

#### "Agreed Charges" Neither Cut Rates Nor Give Preference to Big Shippers

The "agreed-charge" idea, Mr. Sherrington explained, was a feature of the Road and Rail Traffic Act, 1933, and he went on first to address his remarks to the "misapprehension abroad as to the effects of the system." In that connection he stressed "the fact that, with one or two exceptions, there has been no opposition from shippers in Great Britain to the system or its method." The main exception, he added, was the "unique" case of the Woolworth Company where the "agreed charge" is a percentage (now 3.95 per cent) of the cost to Woolworth of the goods it sells. Like all other agreed charges, this one is reviewed annually; and "there has been no opposition since the first year." By June of this year, the British railways had entered agreed-charge arrangements in 824 cases, covering the traffic of 840 shippers; and gross revenues therefrom were coming in at the rate of approximately \$100,000,000 a year.

"There is no truth," Mr. Sherrington asserted, "in the suggestion that it benefits the large shipper, or that



it acts as a reduction in rates, indeed the "agreed charge" is based on the average of rates paid in the past; but the savings accrue through large-scale reductions of clerical work, not only to the shipper, but to the railway, and it has the satisfactory aspect of tying a firm's traffic to the rails, except for those sections of it which can best be handled by alternative means."

Launching his discussion of the "Square Deal" campaign, the speaker paid his respects to the put-them-through-the-wringer boys, finding for such critics a "most telling" answer in the fact that "however one may alter the nominal capital, it effects absolutely no change in the net receipts, and may cause, if drastic reductions are made, a wrong impression to be formed of a railway's profitability." Next came Mr. Sherrington's outline of the restrictions from which the railroads seek to be relieved, and of their success in selling the program as an equitable one to the Transport Advisory Council, consisting of representatives of local authorities, railways, users of mechanically-propelled and horse-drawn highway vehicles, pedestrians, canals, cyclists, coastwise shipping, harbors and docks, labor and shippers. The British railways' platform in the "Square Deal" campaign was promulgated last November and has since been reviewed and commented upon editorially in the *Railway Age* of December 17, 1938, and from time to time in issues subsequent to that date. Because of the British government's preoccupation with international affairs, the necessary legislation has not yet been offered in Parliament; but Mr. Sherrington suggested that if good progress is made late this year, "the whole stage from original request to the grant of the Royal Assent will have taken but little over 12 months—in reality but a short period of time for the completion of such a revolutionary and evolutionary legislative landmark."

Amidst a discussion of other general aspects of the "Square Deal" campaign Mr. Sherrington told how the slogan has been taken up generally throughout Great Britain. In this connection the speaker had with him a furniture retailer's advertising circular which gave over its front cover to a picture of a train as a background for a summoning of prospective customers "For Your 'Square Deal' in Furnishing." Also, he noted the fact that the platform made no mention of a long-and-short-haul clause, because British railways have no such problem.

Furthermore, they, like roads in other European countries, are permitted to offer train-load rates.

Summing up Mr. Sherrington told how the "Square Deal" contemplates that British railways will have a pricing system such as commercial firms have; virtually all rates will be agreed charges; and the whole question of discrimination "goes by the board." He warned that analogies with other countries should not be too closely drawn, because "what may be suitable for a small densely populated country may be utterly unsuitable for a country of wide areas and long hauls, with all the problems that it brings of market competition."

#### Bunnell Calls for Equitable Regulation

A. A. R. Vice-President Bunnell's paper on "The Development of Railroad Regulation in the United States and Its Application to Present Transportation Conditions" was divided into four parts as follows: I—Power Delegated to Congress to Regulate Interstate Commerce; Any Power Not So Delegated Remaining in the States and in the People; II—Public Demands in the 'Seventies and 'Eighties for Federal Legislation Dealing with Railroads; III—Brief Review of Federal Regulation of Rail-

roads to 1939; IV—Equal Regulation by Federal or State Authorities Applied to All Agencies and Modes of Commercial Transportation.

In his survey of the development of federal regulatory policy, Mr. Bunnell found that shortly after it took over the administration of the 1887 Act to Regulate Commerce, the Interstate Commerce Commission was asking for instructions as to whether its authority covered the express business and water transportation on the theory that "the same rules of fairness and equality should be applied to all carriers." This request of the commission Mr. Bunnell found both "interesting and significant" in view of the "prominent part which unregulated competition has played" in bringing about current conditions in the transport field. "The parallel," he added, "is so close that it lends soundness to the conclusion that after 50 years, with the advent of truck, air, pipe line and water competition, we are back where we were prior to the passage of the Act to Regulate Commerce, in that unregulated competition from these other agencies has created chaos in our rate structure; and what we need today is the application of consistent regulation to all agencies and modes of commercial transportation. . . . In addition to equality in regulation it is essential that government should withdraw its support to any individual form of transportation in the nature of subsidies."

#### The "No. 1" Problem

The No. 1 problem in the endeavor to bring about equitable competition, Mr. Bunnell went on, "is the treatment that is to be accorded to the private carrier as against the common carrier" so as to end "the vicious rate cutting cycle for which such private and contract carriers are generally responsible;" and in this connection he found "extremely interesting as well as enlightening" the recent letter wherein Commissioner Eastman told Chairman Lea of the House committee on interstate and foreign commerce that further study should be made of the question of extending regulation to include private carriers.

Proceeding next through his survey of the agitations which crystallized into the public demand for railway regulation during the 'Seventies and 'Eighties and his highlight review of the development up to 1939, of federal policies in connection with railroad regulation, Mr. Bunnell came to his plea for equal regulation of all agencies and modes of commercial transportation. Here he referred briefly to the post-war expansion of new agencies and modes of transportation and to the inauguration in 1935 of federal regulation of motor carriers. In the latter connection the A. A. R. vice-president found it "interesting to contrast the positive characteristics of the Motor Carrier Act as distinguished from the repressive atmosphere surrounding the Act to Regulate Commerce."

#### Private Carriers Cause Erosion in Rates

Figures given by Mr. Bunnell show that there are approximately 44,500 common and contract truck operators and "some 25,000 fleets of eight or more motor trucks operated by private carriers in local and interurban service." "It is from the private operator hauling his own goods," he added, "that a large part of the diversion of freight from railways and the erosion in rates has come. These fleets of trucks are wholly free from regulation (save as to safety and hours of service, which has not yet become operative) and some way must be found to meet this competition. The scope of their activities has

been intensified by a decentralization of industry which the depression has left with us."

If city delivery services and hauling exempt from provisions of the Motor Carrier Act be excluded, Mr. Bunnell next asked **"Is there any good reason why shipper-owners should compete free from regulation as to rates and services with authorized common carriers? Should not these so-called private haulers transporting goods for sale be brought under regulation as contract carriers?"** Under present conditions are they not in effect an obstruction to the effective regulation of a co-ordinated mass transportation system, by diverting from common carriers large amounts of traffic and making ineffective any logical rule of rate-making based on value, distance or other recognized factor in rate making? At least we are certain that while the ceiling of rates which common carriers may charge is what the shipper can provide his own service for, yet in the end the ultimate consumer pays the common carrier freight rate when he buys in the market, and the difference goes into the pocket of the shipper as an additional profit."

Operations of the "gypsy trucker" and government subsidies to highway and waterway transport were next discussed in turn by Mr. Bunnell who referred in such discussion of waterways to a recent visit he made to the office of the Chief of Engineers, U. S. Army. There the A. A. R. vice-president noticed "a wall diagram showing that there were on the docket over two thousand projects, and that the estimated cost to complete them, if finally authorized, would be in the neighborhood of eight billion dollars."

In bringing about equitable transport regulation, Mr. Bunnell would assign the regulatory job to one agency which "would logically be the Interstate Commerce Commission." When he speaks of extending regulation to all forms of transport, he asserted, he does not mean "that any repressive measures should be taken; the regulation should be constructive." In closing the A. A. R. vice-president found pertinent citations for his thesis in a recent statement by Commissioner Eastman and in "the very comprehensive and far reaching comment of former Commissioner B. H. Meyer." The latter was a reference to former Commissioner Meyer's May 22 address before the Western Railway Club, abstracted and commented upon editorially in the *Railway Age* of May 27.

#### Henry Would Get Facts to All the People

In making his above-mentioned plea for a wide dissemination of the facts about the current transport situation, Col. Henry asserted that the "final answer is in the hands of the public, because public policy is the rock on which the transportation problem rests." He would like the American people to know, among other things, that "the railroads are doing a good job of railroading—a better job each year;" that they are doing "an essential job" because without them the country could not get along, despite the claims of some "who are educated beyond their intelligence;" and that mass land transportation which the railroads supply "is the foundation upon which the life on this continent depends."

The railroads, Col. Henry went on, have been prescribed for by the "witch doctors" for a long time; but most of the suggested remedies are "quack remedies." The idea, of the put-them-through-the-wringer school "that you can improve railroad credit by repudiating railroad obligations," he added, "is just of a piece with the ancient practice of treating headaches by cutting holes in human skulls to let the devils out. There is, however, a well-marked route to reduced operating costs, i. e., the capital expenditures route—that's the sound way of

spending money so you can get a better plant to operate for less money."

#### Would Treat All Carriers Alike

Endorsing Mr. Bunnell's stand for the bringing about of equality by the extension of regulation to railway competitors, Col. Henry proceeded to answer the contention that the movement should take the form of a demand for relaxing railroad regulation. "We have tried that, and tried in vain," he said, "in the long-and-short-haul case;" and in general "we've gotten nowhere with the idea." Col. Henry can see "no ground in justice, or equity, or sound common sense for not treating all carriers alike—either turn them loose or regulate all alike."

Referring to the recent case wherein the I. C. C. suspended a proposed trainload rate on blackstrap molasses between New Orleans, La., and Peoria, Ill., and Pekin, the speaker noted that one of the protestants was a private carrier of petroleum on the inland waterways who feared that the trainload-rate idea might spread to rates on petroleum. "Here is a company," Col. Henry went on, "with an advantage over its smaller competitors, which it is not passing on. The railroads undertake to meet that sort of competition with trainload rates and a private shipper operating on a subsidized waterway objects to such attempt of a taxpaying railroad."

"Under equality of conditions," the assistant to the A. A. R. president concluded, "we won't hear any more about the railroad problem. Under such conditions the railroads can take care of themselves—they always have."

#### Darden Reviews Division's Work

Meanwhile at the business sessions, suspended from time to time for the foregoing addresses, the delegates disposed of committee reports dealing with over 300 technical accounting-department subjects. With only a few minor changes, suggested by the committees involved, the reports, as printed in the Agenda, were approved; although supplemental coverage of several of the more important subjects came in special papers read by members of interested committees.

Reviewing the work of the Division since the previous meeting at Atlantic City, N. J., in 1937, Chairman Darden recalled that 1938 marked the fiftieth anniversary of the organization which began to function in 1888 as the Association of American Railway Accounting Officers. In 1919 it became the Railway Accounting Officers Association, and in 1934 it was merged into the A. A. R. Continuing, Mr. Darden reviewed the more important matters which came to the fore during his administration, including the I. C. C. request for annual reports on a system basis; the commission's orders establishing new operating accounts covering protective service to perishable freight; the pending Ex Parte 122 investigation of cost finding; the continuation of the Division's efforts to simplify or curtail reporting requirements of federal and state regulatory bodies; the work of contact committees cooperating with the I. C. C. and the Railroad Retirement Board; and Vice-President Bunnell's "substantial success" in bringing about more general use of road-to-road percentages for the apportionment of interline revenues on I. C. I.

Finally, Mr. Darden acknowledged "with appreciation the many opportunities afforded for cooperation with the I. C. C. in its administrative work," and expressed his "deep appreciation for the fine cooperation and assistance" received from Mr. Bunnell and his staff. Previously the chairman had urged upon the members "the necessity and desirability of utilizing the services and the staff of



Mr. Bunnell's department for the development and exchange of accounting suggestions."

#### Committee Reports and Special Papers

The report of the General Committee, headed by Mr. Darden, covered 30 subjects. In the course of its presentation came the above-mentioned talk of Retirement Board Member Reed, and another, also on cooperative arrangements in connection with the administration of the Railroad Unemployment Insurance Act, by H. A. Toland, general auditor of the Union Pacific. First-Vice-Chairman-Elect Seay, who is chairman of the contact committee with the I. C. C., also spoke briefly at this point. The Committee on Statistics, under the chairmanship of W. F. Kennedy, assistant comptroller of the Louisville & Nashville, dealt with six subjects; while the Committee on Freight accounts, under the chairmanship of Edward Ross, auditor of freight and passenger revenues of the Delaware, Lackawanna & Western, passed on 89 subjects. For special papers Mr. Ross called on A. T. Martin, auditor of the Southern, who discussed that road's plan of using pre-headed abstracts to facilitate the apportionment of revenues on interline traffic that moves consistently; W. J. Daeschner, auditor of freight accounts of the New York Central, who argued for general application of the road-to-road-percents plan of apportioning revenues from l. c. l.; F. L. Doody, assistant general auditor of the Chicago & North Western, who discussed the Division's sample consolidated divisions sheet covering a complete list of C. & N. W. and Chicago, Milwaukee, St. Paul & Pacific stations. Mr. Doody also explained North Western's plan of moving l. c. l. locally without waybills, a set-up which involves the use of Recordak machines at the larger stations and at smaller stations the cooperation of shippers in furnishing an extra copy of each shipping order to serve as the forwarding station's record. Another subject dealt with by the freight committee—Prevention of Overcharges and Undercharges—was discussed in a paper by J. T. Davis, auditor of freight traffic of the Pennsylvania.

The Committee on Overcharge Accounting Rules dealt with 53 subjects. Its report was presented by Chairman R. M. Hunter, assistant to comptroller, Chesapeake & Ohio; while Noah Garner, auditor of freight accounts, Southern, discussed one of the subjects involving suggested revisions of certain rules.

The Committee on Passenger Accounts, under the chairmanship of L. B. Pond, auditor of revenue, New York, New Haven & Hartford, passed on 48 subjects. The presentation of its report included special talks by E. J. Johnson, auditor of passenger and station accounts, Northern Pacific, and W. H. Estano, auditor of passenger accounts, Canadian National. Mr. Johnson discussed the passenger accounts manual which was recently prepared by a special committee in cooperation with Mr. Bunnell's staff; Mr. Estano the proposed circular giving samples of uniform interline ticket forms.

No special paper came with the report of the Committee on Disbursement Accounts, or with those of the Committee on Terminal Companies' Accounts and the Committee on Motor Bus, Truck and Air Transportation Accounts, which were next adopted in turn to complete the disposition of the Agenda. The special papers read in connection with the committee reports will be printed in the proceedings of the meeting, as will the addresses of Chairman Darden and Messrs. Howe, Sherrington and Bunnell. In addition these four addresses will be published in full text in a pamphlet which may be obtained from Secretary E. R. Ford, Transportation Building, Washington, D. C.

## High Maximum vs. High Sustained Speed\*

By John A. Gillies†

**I**N recent issues of certain technical magazines, comparisons have been made of world records for sustained speeds through various distances and great importance has been attached to the records in the range above 90 m. p. h. We of the railroad world have been thrilled and excited over these performances, but a cold analysis of the facts involved has raised a question in the minds of some of us as to the practicability and value of speeds beyond a certain limit.

Consider, for example, a train designed with 400 lb. of weight per rated horsepower, as is typified by the Super-Chief of the Atchison, Topeka & Santa Fe. We find that from a standing start, such a train, operating on level track, requires a distance of 32.4 mi. to attain a top speed of 97 m. p. h., assuming no restrictions or slow-downs under 80 m. p. h. in the last 26 mi., and no restrictions below 90 m. p. h. in the last 22 mi. of that distance.

Computing from acceleration curves we find for this speed an elapsed time of 26 min. and 22 sec. from the starting point to the end of the 34th mile, whereas, with a restricting speed of 90 m. p. h. maximum throughout the same distance, there would be an elapsed time of 27 min. and 13 sec., thus indicating that the speed above 90 m. p. h. would have a total of 51 sec. in elapsed time for the distance of 34 mi.

The essential super-elevation on curves is about  $1\frac{1}{2}$  in. more per degree of curve for a speed of 100 m. p. h. than for 90 m. p. h. This is significant when it is realized that each increment of increase in connection with curves of 30 min. or more introduces many difficulties from the standpoint of maintenance of the super-elevation and of alinement. Furthermore, there are relatively few pieces of track where the alinement, grades, railroad crossings at grade, or incorporated towns with speed restrictions, will permit such sustained speed. These facts, plus the length of time and the distance required to reaccelerate to speeds in excess of 90 m. p. h. have led me to question the economics of speeds in excess of 90 m. p. h.

Even on grades descending at a rate of one-tenth of one per cent, or 5.3 ft. per mile, I find that it requires 20 mi. to attain a speed of 100 m. p. h., but that 90 m. p. h. can be attained in 8 mi. The elapsed time saved by the higher speed over a speed of 90 m. p. h. is 31.7 sec. in the 20 mi.

One of our double-track districts, 112 mi. in length, has for years been equipped with automatic signals designed to afford adequate stopping distances for trains operating at speeds slightly in excess of 90 m. p. h., without assigning any value to the approach vision distance. Recently we made a study of the cost and probable advantages of rearranging the signals on this district to provide stopping distances for trains operating at speeds of 100 m. p. h. After a careful check of the situation, we found that by changing our present blanket restriction of 90 m. p. h. to 100 m. p. h., we could save only 8 sec. in elapsed time over the 112-mi. district.

When one stops to consider that on a district of 100 mi., a train running at 100 m. p. h. will traverse the distance in only 6 min. and 20 sec. less time than a train running at 90 m. p. h., and then take into account the

\* From a paper presented before the Maintenance of Way Club of Chicago on April 24.

† Assistant General Manager, Eastern District, Eastern Lines, Atchison, Topeka & Santa Fe, Topeka, Kan.

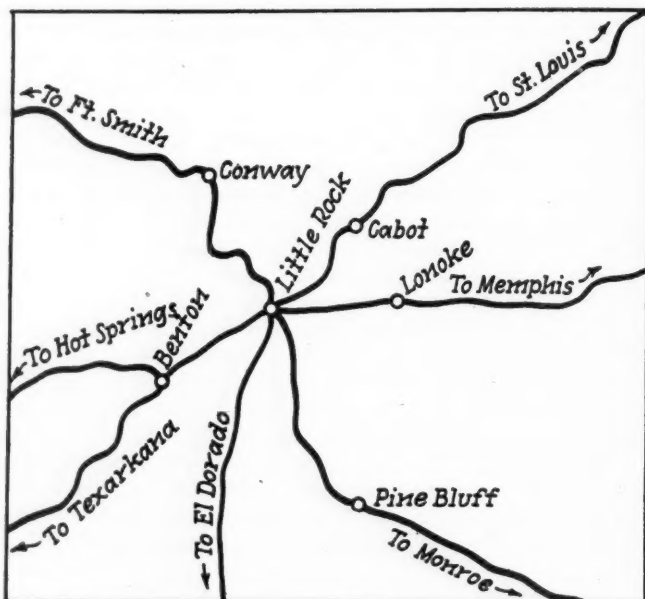
many factors working against a sustained speed of 100 m. p. h., it seems the part of wisdom to analyze the whole operation very carefully before going into the expenditure of large sums of money for the sake of the higher speeds.

A great deal can, and probably will, be accomplished in the next few years in lowering the elapsed time between distant points, but most of it will be done by bringing the average speed up toward a practical maximum. This will be done by changes and improvements which will permit a fairly high sustained speed into, through and out of terminals, the elimination of speed restricting ordinances through towns and cities, and the correction of the three or four peculiar speed-restricting situations found on nearly every operating district, such as turnouts at junction points, sharp curvature at the approaches to major bridges, etc. Each one of these usually increases the elapsed time three or four times the amount that can be regained by running at speeds in excess of 90 m. p. h. at the places where such speeds are attainable.

## Dispatching Buses

**T**HE Little Rock (Ark.) station of the Missouri Pacific Transportation Company is one of the few bus stations in the country where accurate arrival notices are published. This aid to the public, common in railway practice, is practically unknown among bus operators, although, in addition to public convenience, it serves a definite purpose in the M. P. bus operations as well. It is accomplished through the use of the parent railway's telegraph and telephone facilities.

Little Rock is an important terminal for the M. P. buses, and the modern station built three years ago is busy throughout the year, as well as having certain seasonal peaks. M. P. buses operate into Little Rock from seven different main highways, with a total of 33 regular inbound schedules daily, from Memphis, Tenn., St. Louis, Mo., Monroe, La., Texarkana, Ark., Hot Springs, El Dorado, and Fort Smith. In addition, other bus companies operate six daily schedules into this station, bringing the total regular inbound runs to 39



How Missouri Pacific Bus Lines Fan Out From Little Rock



The Little Rock Station of the Missouri Pacific Transportation Company Is One of the Busiest in the Southwest

daily. Since there are an equal number of outbound runs, this means a total of 78 arrivals and departures daily. In addition, there were 280 charter bus movements into and out of Little Rock in 1938.

The map shows the many bus routes into Little Rock, and also indicates the reporting stations along each highway. These are Conway, on the Fort Smith line; Pine Bluff, on the Monroe line; Cabot, on the St. Louis line; and Lonoke, on the Memphis line. Benton, where the Hot Springs and Texarkana routes diverge, serves as a reporting station for both lines. If, for any reason, the buses are behind schedule when passing these reporting stations, the railway agent is notified and telephones the bus dispatching office at Little Rock. On the Memphis line, also, through telephone reports are made by railroad wire between Memphis and Little Rock, giving the leaving time of each bus and the number of passengers for connecting schedules. In case of accident or serious breakdowns, of course, any M. P. railroad office serves as an emergency reporting station.

The value of such reports to people meeting incoming passengers is obvious, but they also serve to promote operating efficiency. Little Rock is a large interchange point, and this information is of much value in determining whether a connecting schedule shall be held for the inbound bus. It is also invaluable in a busy terminal such as Little Rock in giving the dispatcher advance notice so that he may assign his loading and unloading space more efficiently.

The Little Rock district employs 86 drivers, with regular seniority lists and extra boards maintained at Little Rock, Memphis, Monroe, and McGehee. These men are given identically the same physical examinations as the employees of the parent railway, by the physicians of the railway hospital association. Supervision of the operations, personnel and schedules is in the hands of dispatchers at Little Rock, Memphis and Monroe, who take care of ordering out the necessary buses and assigning drivers. A district supervisor and a superintendent of safety cover the territory constantly, while the dispatchers at Memphis and Monroe also make frequent trips on the buses. By efficient dispatching and supervision, the schedules into and out of Little Rock have been made increasingly efficient and the bus operations materially improved.



# Commerce Rather Than Agencies Should Be Regulated

Problems of transportation discussed at  
semi-annual meeting of Associated  
Traffic Clubs of America

**C**OMMERCE rather than agencies should be regulated. This belief was expressed by J. P. Saunders, vice-president of the Southern Pacific, in a discussion of transportation before the annual meeting of the Associated Traffic Clubs of America at San Francisco, Cal., on June 27 and 28.

The program of the two-day meeting included addresses by Mr. Saunders, Joseph E. Sheehan, president of the American President Lines; Wallace L. Ware, attorney and former president of the California State Railroad Commission, and Jack Frye, president of Transcontinental and Western Air, Inc.; consideration of individual traffic club activities; the making of awards to individuals for outstanding service in traffic club educational work and discussion of the report of a special committee on the proposed establishment of a national institute of traffic management.

## Selective Regulation Controls Agencies

"The constitutional warrant for regulation is the regulation of commerce between the states," said Mr. Saunders. "However, Congress has not yet regulated, nor does it appear likely that it intends now to regulate commerce. What has been regulated is certain of the agencies by which commerce is conducted. There is a vast difference. The difference arises out of the fact that commerce in the economic sense is concerned entirely with the transportation of persons and property, while the regulation so far applied has been a selective regulation directed toward controlling the activities of certain agencies by which that transportation is performed.

"To prove my meaning, we have a peculiar and interesting conclusion, presented to us within the last two months. Jack Frye, president of Transcontinental & Western Air, Inc., points out that air travel has been showing a 20 per cent increase each year. He predicts that in the next 15 years practically all long haul travel will be by air. The Senate sub-committee has eliminated air transportation from the Wheeler-Truman Railroad Bill on the ground that the air lines are not a major competitor of other modes of transportation.

"Economically speaking, is there any difference between the act performed by an air line on the one hand and by a railroad on the other in transporting a passenger from Los Angeles to Chicago? There is no economic difference in the act performed. This is the transportation of a person from one point to another. The sale of transportation, whether the passenger uses the air line or the railroad, is in a competitive market. It is probable that air line revenues in the United States in 1939 will approach \$35,000,000. If Mr. Frye is correct, they will be \$70,000,000 in 1944.

"I contend that any agency performing such competi-

tive functions in such volume is a major competitor of the railroads in the long haul passenger field, no matter what the distinguished members of the Senate Interstate Commerce Committee say to the contrary.

## All Should Be Treated Equally

"The fundamental principle of transportation regulation to which I have referred is to insure that all patrons of the regulated utility shall be treated equally. The genesis of this concept is that the treatment of patrons shall be free from discrimination and prejudice. All other phases of regulatory activity are incidental to these main conceptions. A review of the history of regulation shows conclusively that when the regulatory effort has been primarily directed toward the execution of these principles, that regulation has been successful. When collateral ideas, schemes and philosophies have come into the picture, they have almost always failed. The failure is undoubtedly due to the fact that you cannot regulate the laws of economics, and by now we should have learned that it is futile to try.

"In the last 15 years, the railroads have been handling a lesser percentage of the total traffic available. Other agencies are handling more traffic in proportion to the total available than ever before. This condition is primarily the result of the inability of the railroads to meet adequately their more favorably treated competitors. If the effect of the Wheeler Bill now pending in Congress is to correct or alleviate these conditions, a long forward step will have been taken toward making available to the public at large the real values of railway transportation.

## Public Pays for Airport but Railroads Pay for Station

"In discussing the regulatory concept, I referred specifically to the unequal treatment of transportation agencies performing identical functions. This inequality is not confined to the field of regulation.

"At Portland, Ore., public convenience and necessity demanded a new airport. Swan Island, located in the Willamette river close to downtown Portland, and in which the Port of Portland authorities had an investment of about \$1,400,000, was no longer satisfactory and safe for the increasing size of ships using it. The width was insufficient and the approaches obstructed.

"The Portland Columbia Airport, estimated to cost \$3,000,000, is approaching completion to satisfy public convenience and necessity created by the obsolescence of Swan Island. Thus, public convenience and necessity for the replacement of Swan Island have been satisfied—at public expense.

"At Los Angeles, Cal., public convenience and necessity demanded a union station. The California Railroad Commission directed the railroads to construct and oper-

ate a union station at Los Angeles, together with such other terminal facilities and additions, extensions, improvements, and changes in the existing railroad facilities as might be reasonably necessary to the use of a union passenger station, at a cost of approximately \$10,000,000. The Supreme Court of the United States upheld the validity of the commission's order and on May 7 of this year the railroads serving Los Angeles opened the new union station to public use. Public convenience and necessity of Los Angeles for a union passenger station were thereby satisfied *at railroad expense*.

### Land Grant Rates Now Applied to Shipments for Dams

"I realize that the comparison of the Swan Island Airport and the Los Angeles Union Passenger Station will raise at once the land grant cry. The land grants were not 'grants.' They were lands we received in return for a promise to transport government materials and supplies at reduced rates. The limited number of railroads in the United States which received such grants are now paying for them at the rate of about \$10,000,000 per year. Furthermore, it is proper to point out that, with the enormously increased scope of government activities, the land grant rates have come to be applied to an enormous volume of traffic certainly never contemplated at the time of the original acts. For example, the Southern Pacific line from Davis to Portland is a land grant line. The Reclamation Bureau is building a dam across the Sacramento river near Redding which will incidentally generate power, and this project comes within the category of self-liquidating public works. Cement going into that dam is being hauled by the Southern Pacific at land grant rates. It has been recommended in congress that recognition be accorded the fact that the carriers have paid for what they got, and that the land grant rate statutes should be repealed.

"We stand upon the threshold of a new era in transportation. It appears likely that we are embarking upon a program of regulating transportation—not the agencies by which that transportation is performed. This should remove the causes of the failure of regulation to accomplish its objectives by the failure to regulate in equal measure all forms of transportation, and holding the false premise that competition was necessary to secure adequate service at reasonable rates.

### A Zone of Reasonableness in Rate Making

"The public necessity that there be available to it transportation at reasonable rates requires definition. There is a zone of reasonableness in rate making. The maximum limit is that under which the traffic will move. The minimum limit is the out-of-pocket cost. A rate approaching the minimum limit is a competitive or depressed rate, which level, if applied to all rates, will starve the carrier. A rate approaching the maximum limit is fully compensatory with a margin of profit which, if applied to all rates, would mean carrier prosperity. Between the upper and lower margins is, and should be, the free field of managerial judgment. Management should be unrestricted in its power to move rates within this area to meet competitive and other conditions, subject to regulatory check to protect the basic concept that transportation rates must be free from discrimination and prejudice. The margin within the zone of reasonableness represents an area in which management should have the fair prerogative of pricing its own commodity. Such a policy is essential to the establishment of a rational basis for pricing transportation. Nor, on the other hand,

does this method of rate making ignore the two important questions of how to maintain the profits of private initiative and reasonable compensation nor avoid the wastes inherent in the present uncoordinated industrial structure.

"A consistent rate regulatory policy will probably result in an expansion of transportation, combining various types of facilities, because the patrons' concern is not essentially in the method or mode of transportation, but the movement of persons and property in the most efficient manner at the lowest possible cost. It is essential in furtherance of this policy that regulation should be confined primarily to the prevention of undue discriminations and preferences between individuals, commodities, and communities, and determining the limits of zones of reasonableness to which I have referred. This regulation must recognize that if regulated transportation is to compete with the unregulated or private agencies, it must offer the shipper the most efficient service at a satisfactory cost. It is important that the regulatory authority not lose sight of the wisdom of higher rate levels in times of prosperity to the end that reductions may be possible during periods of lowered volume. And in speaking of the relationships of the regulated transportation agencies to the private carriers, it is proper to point out that it would not be unreasonable to define far more strictly the limits within which unregulated and private transportation agencies should be permitted to operate from the broad standpoint of the national transportation policy. This inquiry is legitimate in the face of the fact that the commodities clause of the Interstate Commerce Act has long denied the carriers subject to the Act the right to transport for sale property that they own.

"Subsidy is no substitute for adequate earnings. Subsidy means a failure of private credit and substitution of public credit. When granted to one transport agency but withheld from a competing agency it becomes in essence an instance of competition between private credit and public credit. Private credit is based upon earning power, and public credit is based upon taxing power. Such competition is both unequal and unfair. Subsidy to any transport agency can be justified only by (a) requirements of national defense, (b) necessary encouragement through development state, and (c) a public policy of furnishing required facilities to undeveloped areas where no other exist. In no instance should facilities derived from or supported by subsidies be developed by or used as competitors of private agencies."

### Other Addresses

Mr. Sheehan discussed the creation of a United States merchant marine, arguing its economic value to the country and its importance as a national defense used in conjunction with the Navy. He said in part:

"The statement has been made that the historical tariff policy of the United States automatically stipulates that domestic markets are more important than foreign. That statement is so true as to admit of no discussion but it does not mean that our interest in foreign markets is so meagre as to make us indifferent to their fate. Our 1938 exports represented about 9 per cent of all movable goods produced in the country and our total exports amounted to slightly over \$3,000,000,000. Is an export business of this magnitude so unimportant to us, right now above all times, that we can take a chance with its complete destruction when foreign ships desert us again? I believe not, but it is not adequate to consider the matter from that angle. Rather should we consider the terrific effect on certain sections of the country and on certain individual industries if our commerce is again hit as it was



in 1914-1916. Our exports of cotton, for example, may account for 50 per cent of the whole crop and elimination of the foreign market for cotton, due to another withdrawal of foreign shipping, would cripple the whole South and notably Texas, where far more than half the crop is exported.

"To thousands of people in the United States this enormous trade means much, and a stoppage or a severe curtailment of the flow of such commerce would upset business, possibly cause financial troubles with some, and might cause unemployment for many.

"No act of Congress designed to develop our merchant marine has ever gone beyond the word adequate, and I am certain that we might easily have a merchant marine adequate for our commerce and national defense without having one large enough even to carry 50 per cent of our commerce. The highest figure that I have ever mentioned is 35 per cent, and I have endeavored to show that an increase from our present proportion of 26 per cent to a proportion of 35 per cent would result in increased revenues to an American subsidized merchant marine of approximately \$43,000,000.

#### Regulation to Be Broader

Mr. Ware discussed the development of various types of transportation, dwelling at length upon the trucking industry, in which, he said, 85 per cent of the trucks are privately owned, and 15 per cent are for-hire. "As transportation continues to become more complex," he said, "it is inevitable that regulation will of necessity be compelled to take a broader field than exists at present. Some arrangement will have to be made to regulate the hundreds of thousands of property-carrying trucks now using the highways as plant facilities, and which are now performing the same service as the trucks which are under regulation. Under a stable system of regulated competition the transportation industry will be able to play its proper part in the economic destiny of the land.

"If I had the lamp of Aladdin, and were charged with the responsibility of performing the greatest service for the transportation agencies that now surfeit America, I would implore by genie to cause the rails and trucks and water carriers of America to lay down their destructive weapons of greed and avarice and start henceforth to combat by co-operative and constructive measures foes that are common alike to the rails and trucks and water carriers. This does not mean that there would or should be surcease of competition among transportation agencies. Quite the contrary. For the day will never come when a proper degree of competition among all forms of transportation agencies will fail to result in the greatest blessings to the public interest. Competition is the spur, government the whip, and the public interest is the track upon which the race of all necessary transportation agencies is run."

#### Educating Public Is Problem of Airlines

Education of the public as to the actual lack of risk involved in air travel is the major problem of the airlines, according to Mr. Frye, who described the advancement of air transportation during the last ten years. His conclusion was based upon a canvass of ordinary citizens which showed that in answering the question, "How many fatalities do you think were the result of commercial air transport accidents last year?" there was a 1700 per cent exaggeration. To demonstrate the safety of flying, he said, air travel insurance and rail travel insurance between Chicago and New York are the same.

He also emphasized the ability of commercial airlines

to get together and meet the problems in a friendly constructive manner. As an example, he said, the airline industry will launch a national co-operative advertising campaign along institutional lines to acquaint the general public with the prime advantages of air travel. A fund of \$300,000 has been subscribed for one year's advertising campaign, every commercial airline operating in the United States contributing its portion.

Alvin E. Ross, president of the San Francisco Employers Council, was the speaker at the banquet, discussing strikes on the San Francisco water front and methods used in combating anti-social labor practices.

### Additional Sleepers for the Denver Zephyrs

(Continued from page 66)

rangements have been made on the cars, however, for the mounting of body-hung generators and battery equipment, should this become desirable in the future. All electrical, as well as steam and air, connections are made between the cars by Ohio Brass automatic connectors.

In each of the bedrooms there are two ceiling lights and two sofa lights, one of which has a blue night light, a light in the upper berth, and one over the mirror. In each chambrette, and also in each of the roomettes are two ceiling lights, one with a blue night light, a light over the head of the folding bed, and two mirror lights. In the drawing room, there are three ceiling fixtures, one with a blue night light, three sofa lamps, an upper berth light, and a light above the head of the folding bed. There is a ceiling light and two mirror lights in the annex. In the compartment, there is one ceiling fixture and two sofa lights, one of which includes a blue night light. There is an additional wall fixture, and the upper berth two lights. There is also a lamp above the mirror. Ceiling fixtures in the aisle and corridor are ten in number.

The vestibules are similar to those on the earlier equipment built for the Denver Zephyrs. They are closed with double side doors which extend down into the step well, the bottom step folding up to conform to the exterior side of the car and the curved skirting below. The end door of each pair is divided so that the top half may be opened separately from the bottom.

#### The Trucks

The trucks are fitted with Timken roller bearings for nominal 5½-in. by 10-in. journals, and the wheels are rolled steel 33 in. in diameter. The truck frames and bolsters are of alloy steel. Houde shock absorbers are mounted on the transom and connected to the bolsters. There is a torsional roll stabilizer on each truck.

The truck brakes are the Simplex unit cylinder clasp type with two 12-in. by 8-in. cast aluminum cylinders on each truck.

The cars, Pullman operated and lettered "Pullman" on the outside, are named the "Silver Slipper" and the "Silver Moon."

**TONCAN IRON PIPE.**—The Republic Steel Corporation, Cleveland, Ohio, has issued an attractive, two-color, 44-page catalog entitled "Toncan Iron Pipe For Tough Service", which describes the manufacture of Toncan Copper Molybdenum Iron Pipe and discusses its rust and corrosion resistance and other physical properties, giving details of various tests, outstanding installations and service records in specific fields. The catalog also presents tables of sizes and weights and explains how to specify and order and where to order.

## De Luxe Coaches for Sun Valley

**T**HE Union Pacific has recently placed two de luxe White coaches in service between Sun Valley and the railway main line at Shoshone, Idaho. These coaches were specially designed by the operating officers of the railway and the engineering department of the White Motor Company and were built primarily with the idea of carrying out the luxurious appointments offered by this resort.

Equipped with 12-cylinder, underfloor, 211 h. p. engines, these buses have a number of outstanding and unusual features, including stationary, curved window sections and an outside color scheme duplicating the design of the U. P. streamlined trains. The interior decorations include continuous lighting fixtures, supplied by Luminator, Inc., giving indirect lighting throughout the coach. Heywood-Wakefield Company designed the 21 reclining seats, covered with mohair and equipped with

sliding rubber cushions. Special forced-draft ventilation is another feature.

The mechanical units were built by the White Motor Company, and the bodies were built in the White shops, designed in co-operation with the Aluminum Company of America, aluminum having been used largely in the body design. A large compartment is supplied for passengers' wraps, with special facilities for handling valuable fur coats without damage. Another compartment is specially designed for the handling of skis and ski clothing.

## New Book . . .

*Protective Coatings for Metals. American Chemical Society Monograph Series No. 79. By R. M. Burns, Ph.D., assistant chemical director, Bell Telephone Laboratories, and A. E. Schuh, Ph.D., director of research, United States Pipe and Foundry Company. Published by the Reinhold Publishing Corporation, 330 West Forty-Second street, New York. 385 pages, 5½ in. by 9 in. Price, \$6.50.*

About three years ago, upon invitation and with the consent of H. S. Rawdon, author of "Protective Metallic Coatings" which was published in 1927, Messrs. Burns and Schuh undertook to revise Mr. Rawdon's book. During the process, however, it was found expedient to enlarge the scope of the book to include protective coatings of all types, including paint, that those interested in corrosion prevention might be given more comprehensive information on the subject. Hence, the present volume is designed primarily for those who have problems of protection, although considerable information is given on the production of protective coatings so that the reader may have a better understanding of the nature of the various coatings. The sixteen chapters cover Protective Coatings and the Mechanism of Corrosion; Surface Preparation for the Application of Coatings; Types of Metallic Coatings and Methods of Application; Zinc Coating by Hot-Dripping Process; Zinc Coating by Electroplating and Cementation; Protective Value of Zinc Coatings; Cadmium Coatings and Their Protective Value; Tin Coatings; Nickel and Chromium Coatings; Coatings of Copper, Lead, Aluminum and Miscellaneous Metals; Coatings of Noble and Rare Metals; Methods of Testing Metallic Coatings; Composition of Paints and Mechanism of Film Formation; Durability and Evaluation of Paints; Paint Practices, and Miscellaneous Coatings.



Modern Lighting and Seating Features the Buses



The DeLuxe Whites Serving Sun Valley Have Many Special Features



# NEWS

## Shippers' Boards Forecast Loadings

Expect third quarter to be about 9.9 per cent above last year

Freight car loadings in the third quarter of 1939 are expected to be about 9.9 per cent above actual loadings in the same quarter in 1938, according to estimates compiled by the 13 Shippers' Advisory Boards and made public on July 5.

On the basis of these estimates, freight car loadings of the 29 principal commodities will be 5,268,278 cars in the third quarter of 1939, compared with 4,793,346 actual car loadings for the same commodities in the corresponding period last year.

All 13 Boards except the Central Western and the Trans-Missouri-Kansas estimate an increase in car loadings for the third quarter of 1939 compared with the same period in the preceding year.

Tabulation below shows actual loading for each district for the third quarter of 1938, the estimated loadings for the third quarter of 1939, and the percentage of decrease or increase:

Shippers' Advisory Boards	Actual Estimated Loadings		Per Cent Increase
	Third Quarter 1938	Third Quarter 1939	
Allegheny .....	574,310	675,533	17.6
Pacific Coast .....	208,637	214,109	2.6
Pacific Northwest .....	182,098	190,855	4.8
Southwest .....	332,851	334,082	0.4
Southeast .....	492,987	513,273	4.1
Great Lakes .....	276,521	359,491	30.0
Atlantic States .....	460,479	487,468	5.9
Central Western .....	212,493	208,960	*1.7
New England .....	74,291	77,530	4.4
Northwest .....	343,840	472,349	37.4
Mid-West .....	677,453	732,457	8.1
Ohio Valley .....	629,438	684,582	8.8
Trans-Missouri-Kansas .....	327,948	317,589	*3.2
Total .....	4,793,346	5,268,278	9.9

Of the 29 commodities included in the estimate, increases are expected in 21 and decreases in eight.

Of the commodities for which increases are estimated in the third quarter of 1939, compared with the same period in 1938, those showing the largest percentage of increase are: Ore and concentrates, 74.6 per cent; automobiles, trucks and parts, 41.1 per cent; iron and steel, 24.1 per cent; brick and clay products, 12 per cent; machinery and boilers, 11.4 per cent; cement, 9.4 per cent; coal and coke, 9.3 per cent; paper, paper board and prepared roofing, 8.4 per cent; lime and plaster, 7.7 per cent; and cotton, 6.7 per cent.

Among the decreases estimated are: 16.1 per cent for hay, straw, and alfalfa; 13.4

\*Decrease.

per cent for grain; 5.8 per cent for potatoes; 5.1 per cent for citrus fruits; 4.7 per cent for cotton seed and products except oil; 1.6 per cent for sugar, syrup and molasses; 1.1 per cent for fresh vegetables other than potatoes; and four-tenths of one per cent for gravel, sand and stone.

## Northland Greyhound Extension Approved

Division 5 of the Interstate Commerce Commission has authorized the Northland Greyhound Lines, a motor carrier affiliate of the Great Northern, to extend its operations between the following points in the upper peninsula of Michigan and in Wisconsin: From Calumet, Mich., to St. Ignace and Escanaba; from Humboldt, Mich., to Iron Mountain; and from Milwaukee, Wis., to Green Bay.

## Estimated Weights on Citrus Fruits

The Interstate Commerce Commission has reopened for further hearing the case involving estimated weights on citrus fruits—I. & S. Docket No. 4511. The further hearing, to be held before Examiner Carter in Washington, D. C., on August 7, will be "solely for the following purposes:"

(1) The receipt of evidence relating to the reasonableness of the charges which would result if the suspended estimated weights become effective, or the reasonableness of charges which respondents may propose.

(2) The receipt in evidence of test weights made by respondents during the 1938-39 season of citrus fruits loaded in the bruce box and the nailed box of 1 3/4 bushels capacity.

## Railroad Retirement Board Orders

The Railroad Retirement Board, on June 15, ordered the director of wage and service records to prescribe a change in the reporting practices of all employers who report to the Board on a weekly payroll basis whereby all compensation earned after June 30, 1939, shall be reported separately from compensation earned on or before that date. This was recommended by the director of unemployment insurance in view of the provisions of the Railroad Unemployment Insurance Act which require contributions by employers based on employment after June 30, 1939.

The general counsel of the Board has ruled that the value of meals and lodging furnished by an employer is not creditable as compensation under the Railroad Retirement Act unless it is established that the employer and the employee have agreed before the performance of the service upon the amount of compensation, and that part of the compensation for the job was to be paid in the form of meals and lodging, and that the meals and lodging were to have a definite value.

## To Squelch Foes of Adj. Board?

Unions demand R.R. speeches against set-up cease, with no aids to publicity

Representatives of the railway labor organizations (all of them except the Brotherhood of Railroad Trainmen) met in Washington last Friday with representatives of the Association of American Railroads to discuss the complaint of the labor group that the railroads were campaigning against the Railway Labor Act in general, and the Adjustment Board set-up in particular. Behind the labor group's complaint lay their implicit threat to withdraw their support from pending transportation legislation, unless the alleged campaign against the Adjustment Board set-up were discontinued.

The labor group complained specifically of four acts by railroad management, viz.: (1) A speech made by President W. L. Fox of the Association of Railroad Superintendents at its recent convention (see *Railway Age* of June 17, page 1026) in which he stated that "some concerted action should be taken to bring to light the conditions brought about by decisions of referees of the adjustment boards that are doing so much to crucify the railroads"; (2) a speech by M. J. Gormley, executive assistant of the A. A. R., referring to the same conditions mentioned by Mr. Fox; (3) a statement by Receiver H. D. Pollard of the Central of Georgia (see *Railway Age* of June 17, page 1051) in which he cited a few eloquent examples of the injustices worked by the decisions of some of the referees, also citing the high pay received by these referees, and their consequent desire to hand down the kind of decisions which would assure their getting more of this remunerative work to do; (4) the attendance of newspaper reporters and other threats of publicity at a recent adjustment board hearing in which the Santa Fe is the intended victim.

The labor group protested that these acts were in violation of the agreement reached by the Committee-of-six to the effect that problems having to do with labor relations should be submitted to joint conference and collective bargaining, before being appealed to the government or "otherwise handled."

The labor conferees agreed that an effort to exclude newspaper reporters from Adjustment Board hearings would probably serve only to attract publicity, rather than repel it. They insisted, however, that railroad management should not assist the:

press in giving publicity to Adjustment Board cases by giving out any "background" information on awards, so that the total effect of an award on the finances of a company would become known. That is to say, if the press is to get any information on these cases, it should be only such as their reporters can glean from the routine hearings before the Adjustment Board.

A joint committee was named to canvass the situation and to adjust the differences between the railroads and the unions with respect to it. The labor portion of the joint committee will consist of the following representatives: D. B. Robertson, president of the Brotherhood of Locomotive Firemen and Enginemen; J. A. Phillips, president of the Brotherhood of Railway Conductors; H. W. Brown, president of the International Association of Machinists; V. O. Gardner, president of the Order of Railroad Telegraphers; S. J. Hogan, president of the Marine Engineers' Beneficial Association; and J. G. Luhrs, executive secretary of the Railway Labor Executives Association. As this issue went to press management was working on its list but had not made public its personnel.

Some lack of understanding prevails as to the principal job of this Committee, i.e., whether it is primarily to seek means of removing the injustices which have given rise to the criticism of the present method of handling these cases or whether, on the other hand, the Committee's first function shall be to "police" railroad managements to see that they are in no way promoting further public understanding of the nature of these referee awards.

### Summertime Ice Skating at Sun Valley

A summertime ice skating rink is one of several new summer facilities being opened at Sun Valley Lodge. An outdoor dining terrace built along the front of the building overlooks a newly constructed open-air dance floor and the new ice plaza.

### Equipment Depreciation Orders

Equipment depreciation rates for seven railroads are prescribed by the Interstate Commerce Commission in a new series of sub-orders and modifications of previous sub-orders in No. 15,100, Depreciation Charges of Steam Railroad Companies. The composite percentages for all equipment, which are derived from the individual prescribed rates, range from 3.1 per cent for the Western Pacific to 6.72 per cent for the Middletown & Unionville.

Other roads on the list are: Elgin, Joliet & Eastern; Flemingsburg & Northern; Minnesota Transfer; Union Terminal of St. Joseph, Mo.; and Ventura County.

### Suspends Proposed Cut in "All Freight" Rate

The Interstate Commerce Commission has suspended from July 3, until February 3, 1940, the operation of certain schedules proposing to reduce the rate on freight, all kinds, in straight or mixed carloads, from St. Louis, Mo., and East St. Louis, Ill., to Memphis, Tenn., from 50 cents per 100 lbs., minimum weight

40,000 lbs., to 40 cents, minimum weight 30,000 lbs.

The Commission has also suspended from July 3, until February 3, 1940, the operation of certain schedules proposing to reduce the rates on import and inter-coastal woodpulp, in carloads, from the north Atlantic ports and from Montreal, Que., Sorel and Quebec, to destinations in Indiana, Michigan and Ohio, and points intermediate thereto.

### Hearings on Reorganization Court Bill

House judiciary committee hearings on the Senate-approved railroad reorganization court bill, S. 869, were resumed on July 5 when presentations were made by Eugene F. Taliaferro of the New York financial firm of Joseph Walker & Sons, James N. Rosenberg, New York attorney, and B. M. Jewell, one of the three labor members of President Roosevelt's committee-of-six.

Reading a statement along the lines of that he made at Senate hearings, as noted in the *Railway Age* of May 13, page 836, Mr. Taliaferro discussed the plight of leased lines in reorganizations. Mr. Rosenberg appeared in opposition to the bill while Mr. Jewell discussed the committee-of-six recommendations on railroad reorganizations, including that calling for a special court to handle reorganizations.

### President Signs Bills

The President has signed three bills which are of interest to the railroad industry, the Agriculture Department Appropriation Bill for the fiscal year ending June 30, 1940 which carries an appropriation of \$40,000,000 for the Bureau of Public Roads for grade crossing elimination work; the War Department Civil Functions Bill which allocates \$96,000,000 for rivers and harbors improvement; and the new Tax Revision measure which would permit railroads in financial difficulties to purchase their own securities at less than par without being subjected to the capital gains tax.

Representative Angell, Republican of Oregon, has introduced in the House H. R. 7059, a bill which would amend the Railroad Retirement Act of 1937 so as to provide for the payment of benefits with respect to the month in which an annuitant or pensioner dies.

### Railroads Make Extensive Use of Highways

During the first three months of 1939 the Class I steam railroads carried 24,257 tons of revenue freight on the highways in their own vehicles and 302,954 tons in vehicles belonging to others, or a total of 327,211 tons, according to the Interstate Commerce Commission's statement No. Q-225, the first issue of a new series of such statements. This total figure is 5.07 per cent of all the l. c. l. tons, as reported in the quarterly reports of the commission's freight commodity statistics of Class I steam railroads. The freight carried in their own vehicles represented 1,320,000 ton-miles, while in the vehicles of others the revenue ton-miles totaled 7,662,000. The statement also shows that the miles

per ton per railway of all highway traffic amounted to 27.5.

Also, during the first three months of 1939 the Class I railroads carried 155,351 passengers over the highways in their own vehicles and 284,057 passengers in the vehicles of others, or a total of 439,408 passengers. The ratio of highways passengers to the total passengers reported by these roads was 1.07. The number of revenue passenger-miles in the carriers' vehicles amounted to 873,273, and in the vehicles of others 6,601,912, or a total of 7,475,185. The ratio of highway passenger-miles to the total passenger-miles reported by the railways was 0.36 per cent; while the miles per passenger per railway of all highway traffic totaled 17.

### German Diesel Train Attains 133 M. P. H.

An average speed of 124 m.p.h. for the 186-mile stretch between Berlin, Germany, and Hamburg was chalked up by a new three-car, Diesel-propelled train of the German State Railways recently, according to an official report of June 26. It is further stated that the new train held a top speed of 133 m.p.h. for 25 minutes during the test run.

The road bed over which the test train made the record was rebuilt in 1932 for high speed traffic and the fast "Flying Hamburger," a pioneer Diesel streamliner, has been operated regularly over it since the spring of 1933. This train, operating daily in both directions, is scheduled to run between Berlin and Hamburg in 137 minutes or at an average speed of 81.4 m.p.h.

The new train is powered by two Maybach Diesel engines of 600 hp. each. Its top speed of 133 m.p.h. is claimed to be the world's record in railroad speeds. According to *Railway Age* records the Pennsylvania Special (now the Broadway Limited) reached a speed of 127.2 m.p.h. for a distance of three miles between Elida, Ohio, and AY tower on June 12, 1905.

### Gardner Succeeds Manion as Telegraphers' Chief

Edward J. Manion, president of the Order of Railroad Telegraphers since 1919, has retired from active service with the organization and Victor O. Gardner, second vice-president and former general chairman of Rock Island System division No. 35, was elected to succeed him, at a recent Grand division meeting held in Milwaukee, Wis.

Mr. Manion was born in Derby, Conn., July 21, 1872 and entered railroad service in 1893 as yard clerk with the New York, New Haven & Hartford at Ansonia, Conn. Between 1894 and 1908 he served in various telegrapher's, agent's and towerman's posts with the road, during which time, in 1904, he was elected local chairman of the Order and in 1905 general chairman. In 1908 he became salaried general chairman for the New Haven system. Between 1909 and 1919 he served as vice-president, O. R. T., and in May, 1919 was elected president of the organization. Mr. Manion was elected secretary-treasurer of the newly-organized Railway Labor Execu-



tives' Association in 1926, but resigned a few years later because of pressure of other duties.

### Freight Car Loading

Carloading reports were so delayed by the Fourth of July holiday that the Association of American Railroads was unable to announce the total for the week ended July 1 by the time this issue went to press.

As reported in last week's issue, the loadings for the previous week ended June 24, totaled 642,987 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings			
For Week Ended Saturday, June 24			
Districts	1939	1938	1937
Eastern .....	131,597	118,424	155,641
Allegheny .....	120,599	99,938	157,736
Pocahontas .....	47,239	35,416	47,843
Southern .....	90,682	79,998	101,269
Northwestern .....	97,224	78,212	131,279
Central Western .....	109,422	100,266	120,043
Southwestern .....	46,224	46,534	56,134
Total Western Districts .....	252,870	225,012	307,456
Total All Roads	642,987	558,788	769,945
Commodities			
Grain and Grain Products .....	46,992	41,985	40,899
Live Stock .....	10,272	10,582	12,403
Coal .....	100,949	86,674	113,537
Coke .....	5,864	4,098	9,570
Forest Products .....	30,552	26,631	39,567
Ore .....	41,417	22,771	74,370
Merchandise			
l.c.l. ....	151,850	145,466	166,772
Miscellaneous .....	255,091	220,581	312,827
June 24 .....	642,987	558,788	769,945
June 17 .....	637,873	555,519	752,787
June 10 .....	634,597	553,854	750,500
June 3 .....	567,732	502,617	688,987
May 27 .....	627,674	562,076	790,503
Cumulative Total,			
25 Weeks .....	14,677,594	13,641,752	18,237,829

In Canada.—Car loadings for the week ended June 24 totaled 45,366, as compared with 43,888 in the previous week and 43,393 last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
June 24, 1939 .....	45,366	20,785
June 17, 1939 .....	43,888	21,180
June 10, 1939 .....	42,497	20,042
June 25, 1938 .....	43,393	18,355
Cumulative Totals for Canada:		
June 24, 1939 .....	1,069,664	556,825
June 25, 1938 .....	1,101,146	523,709
June 26, 1937 .....	1,188,576	700,581

### Abolish I. C. C. if Independence Is Lost

The Interstate Commerce Commission should be abolished if its independence is lost, according to the Dr. Balthasar H. Meyer, retired member of the Interstate Commerce Commission, at a special luncheon held jointly by the Traffic Club of Chicago and the Chicago area members of the Association of Practitioners before the Interstate Commerce Commission on June 29, in his honor and in recognition of his long and faithful service. Tributes to Dr. Meyer were made by H. A. Hollopeter, traffic director of the Indiana Chamber of Commerce; Luther M. Walter, co-trustee of the Chicago Great Western, and C. E. Hochstedler, traffic director of the Chicago Association of Commerce.

The Interstate Commerce Commission, said Dr. Meyer, is better able to make decisions under the present set-up than any other governmental body. No plan now

under consideration will better serve the nation's transportation industry than the Interstate Commerce Commission, providing it retains its independence. If its independence is lost, it should be abolished.

In discussing the work done by the Commission, Dr. Meyer said that the future work is bound to be more complex and more difficult because of the different agencies of transportation which have developed in recent years and which have resulted in many differences of opinion. He emphasized the fact that no decision by the I. C. C. was ever determined by external influence.

In discussing the number of members of the Commission, he opposed 16 or 18 members because of the difficulties that increase as the number of members increases. A commission of 16 or 18 members, he said,

will cease to function as it has in the past. Past experience has shown, he continued, that for most of the work coming before the commission, three men furnish all the deliberations that are necessary.

### I. C. C. Compilation of Income and Balance Sheet Items for April

The Interstate Commerce Commission on July 1 made public its latest monthly compilation of selected income and balance sheet items showing April's net deficit of the Class I roads as \$27,896,068 and that for this year's first four months as \$71,486,946, as reported a few days earlier by the Association of American Railroads and noted in the *Railway Age* of July 1. The foregoing compare with an April, 1938, red figure of \$33,266,705, and one

### SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 135 Reports (Form IBS) Representing 140 Steam Railways)

(Switching and Terminal Companies Not Included)

#### TOTALS FOR THE UNITED STATES (ALL REGIONS)

For the month of April		For the four months of	
1939	1938	1939	1938
<b>Income Items</b>			
1. Net railway operating income.....	\$15,257,937	\$101,066,274	\$29,360,308
2. Other income .....	10,456,202	42,209,201	44,202,300
3. Total income .....	25,714,139	143,275,475	73,562,608
4. Miscellaneous deductions from income .....	1,833,282	8,072,474	8,454,762
5. Income available for fixed charges .....	23,880,857	135,203,001	65,107,846
6. Fixed charges:			
6-01. Rent for leased roads and equipment .....	11,220,379	43,804,006	41,253,673
6-02. Interest deductions .....	39,548,781	158,297,174	157,946,760
6-03. Other deductions .....	8,067	533,542	858,607
6-04. Total fixed charges .....	50,761,093	202,634,722	200,059,040
7. Income after fixed charges .....	*26,880,236	*67,431,721	*134,951,194
8. Contingent charges .....	1,015,832	4,055,225	4,052,994
9. Net income .....	*27,896,068	*71,486,946	*139,004,188
10. Depreciation (Way and structures and Equipment) .....	16,839,686	67,262,499	67,136,726
11. Federal income taxes .....	1,163,698	6,444,710	3,580,573
12. Dividend appropriations:			
12-01. On common stock .....	482,190	13,966,090	20,580,706
12-02. On preferred stock .....	764,962	4,816,206	4,546,903
<b>Balance at end of April</b>			
<b>Selected Asset Items</b>			
13. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707) .....		\$640,589,331	\$652,620,728
14. Cash .....		429,772,447	305,903,442
15. Demand loans and deposits .....		13,306,720	8,010,846
16. Time drafts and deposits .....		20,212,533	19,674,157
17. Special deposits .....		55,661,120	57,440,742
18. Loans and bills receivable .....		1,299,130	3,766,100
19. Traffic and car-service balances receivable .....		49,532,708	47,965,024
20. Net balance receivable from agents and conductors .....		42,150,163	37,427,275
21. Miscellaneous accounts receivable .....		120,646,631	133,640,208
22. Materials and supplies .....		328,332,592	374,088,199
23. Interest and dividends receivable .....		19,245,128	21,645,419
24. Rents receivable .....		1,142,059	1,454,083
25. Other current assets .....		4,380,971	4,155,280
26. Total current assets (items 14 to 25) .....		\$1,085,682,202	\$1,015,170,775

Balance at end of April		Balance at end of April	
1939	1938	1939	1938
<b>Selected Liability Items</b>			
27. Funded debt maturing within 6 months† .....	\$259,097,232	\$212,561,395	
28. Loans and bills payable‡ .....	245,477,299	231,794,250	
29. Traffic and car-service balances payable .....	65,772,130	63,482,817	
30. Audited accounts and wages payable .....	234,269,922	245,266,064	
31. Miscellaneous accounts payable .....	65,644,594	57,912,173	
32. Interest matured unpaid .....	860,792,262	710,129,972	
33. Dividends matured unpaid .....	1,809,751	2,576,921	
34. Funded debt matured unpaid .....	645,211,278	522,023,236	
35. Unmatured dividends declared .....	878,373	1,364,969	
36. Unmatured interest accrued .....	93,157,088	95,782,794	
37. Unmatured rents accrued .....	36,449,624	34,552,512	
38. Other current liabilities .....	24,600,560	20,997,198	
39. Total current liabilities (items 28 to 38) .....	\$2,274,062,881	\$1,985,882,906	
40. Tax liability (Account 771):			
40-01. U. S. Government taxes .....	\$55,412,244	\$53,386,926	
40-02. Other than U. S. Government taxes .....	\$138,946,693	\$137,378,108	

‡ Represents accruals, including the amount in default.

† Includes payments which will become due on account of principal of long-term debt (other than that in Account 764, Funded debt matured unpaid) within six months after close of month of report.

‡ Includes obligations which mature not more than 2 years after date of issue.

\* Deficit or other reverse items.

# NET INCOME OF LARGE STEAM RAILWAYS WITH ANNUAL OPERATING REVENUES ABOVE \$25,000,000

(Switching and Terminal Companies Not Included)

Name of railway	Net income after deprec.		Net income before deprec.	
	For the four months of 1939	1938	For the four months of 1939	1938
Alton R. R.	\$729,512	\$865,370	\$643,964	\$744,679
Atchison, Topeka & Santa Fe Ry. System	3,566,381	6,313,279	377,634	2,359,675
Atlantic Coast Line R. R.	1,077,973	1,595,152	1,782,103	2,274,041
Baltimore & Ohio R. R.	4,577,306	9,379,380	2,180,992	6,938,645
Boston & Maine R. R.	511,359	2,080,143	8,720	1,539,660
Central of Georgia Ry.†	978,925	1,166,489	694,763	880,976
Central R. R. of New Jersey	1,378,034	1,343,223	911,421	870,301
Chesapeake & Ohio Ry.	3,150,056	3,123,357	5,904,751	5,893,103
Chicago & Eastern Illinois Ry.‡	601,080	756,325	403,377	547,726
Chicago & North Western Ry.‡	6,799,172	8,082,955	5,145,872	6,391,240
Chicago, Burlington & Quincy R. R.	953,842	2,061,739	775,468	383,319
Chicago Great Western R. R.‡	438,645	932,520	259,032	753,258
Chicago, Milwaukee, St. Paul & Pacific R. R.‡	6,893,763	7,818,227	4,966,198	5,916,714
Chicago, Rock Island & Pacific Ry.‡	4,120,712	5,497,724	2,759,195	4,111,868
Chicago, St. Paul, Minneapolis & Omaha Ry.	1,248,552	1,122,661	1,054,868	926,221
Delaware & Hudson R. R.	379,380	799,193	718,612	449,640
Delaware, Lackawanna & Western R. R.	619,842	1,478,594	194,111	653,506
Denver & Rio Grande Western R. R.‡	2,093,995	2,568,467	1,690,484	2,166,841
Elgin, Joliet & Eastern Ry.	565,253	409,322	890,585	74,731
Eric R. R. (including Chicago & Erie R. R.)§	1,787,418	4,958,127	561,647	3,700,338
Grand Trunk Western R. R.	1,009,594	2,190,693	621,800	1,813,935
Great Northern Ry.	4,702,940	6,058,501	3,468,423	4,817,216
Illinois Central R. R.	575,480	1,075,187	1,638,287	1,083,835
Lehigh Valley R. R.	139,693	1,644,320	569,940	915,218
Long Island R. R.	1,276,816	1,082,412	884,622	691,472
Louisville & Nashville R. R.	642,578	1,265,388	2,086,589	170,554
Minneapolis, St. Paul & Sault Ste. Marie Ry.‡	2,981,265	2,739,425	2,575,914	2,329,882
Missouri-Kansas-Texas Lines	1,538,914	1,805,174	1,093,444	1,367,291
Missouri Pacific R. R.‡	5,738,322	6,283,101	4,285,920	4,812,023
New York Central R. R.‡	7,321,287	13,136,695	2,046,875	7,782,214
New York, Chicago & St. Louis R. R.	121,973	1,324,524	403,338	749,892
New York, New Haven & Hartford R. R.‡	1,664,913	4,806,112	533,669	3,681,801
Norfolk & Western Ry.	5,796,225	2,876,327	7,459,448	4,536,864
Northern Pacific Ry.	4,046,891	4,792,425	2,918,230	3,663,689
Pennsylvania R. R.	1,861,766	4,318,975	10,538,120	3,938,375
Pere Marquette Ry.	296,964	1,488,150	493,885	688,174
Pittsburgh & Lake Erie R. R.	253,027	15,944	1,000,784	765,288
Reading Co.	842,674	269,531	1,879,366	774,300
St. Louis-San Francisco Ry.‡	4,284,792	4,904,830	3,260,251	3,863,393
St. Louis Southwestern Lines‡	546,881	787,751	340,631	580,195
Seaboard Air Line Ry.‡	1,552,810	1,967,129	837,568	1,287,848
Southern Ry.	329,330	3,068,321	807,801	2,046,553
Southern Pacific Transportation System	5,142,003	10,492,656	2,510,562	7,724,258
Texas & Pacific Ry.	124,206	81,074	524,202	316,817
Union Pacific R. R. (including leased lines)	1,124,342	706,721	3,620,930	3,162,282
Wabash Ry.†	2,044,533	3,188,808	1,329,996	2,471,576
Yazoo & Mississippi Valley R. R.	289,311	258,848	135,914	78,275

\* Deficit.

† Report of receiver or receivers.

‡ Report of trustee or trustees.

§ Under trusteeship, Erie R. R. only.

¶ Includes Atchison, Topeka &amp; Santa Fe Ry., Gulf, Colorado &amp; Santa Fe Ry., and Panhandle &amp; Santa Fe Ry.

|| Includes Boston &amp; Albany, lessor to New York Central R. R.

|| Includes Southern Pacific Company, Texas & New Orleans R. R., and leased lines. The report contains the following information: "Income reported hereon excludes offsetting debits and credits for rent for leased roads and equipment, and bond interest, between companies included herein. Operations of all separately operated solely controlled affiliated companies, during the corresponding periods resulted in a net deficit of \$2,523,391 and \$2,676,335, respectively. The 1939 deficit includes \$211,172 for the month and \$844,688 for the period, representing interest on bonds of such companies owned by Southern Pacific Company not taken into income and, therefore, not included in the 1939 amounts reported against items 2 and 9 of this statement. The consolidated deficit for Southern Pacific Transportation System and separately operated solely controlled affiliated companies for the month amounted to \$1,075,344, and for the period \$6,820,706.

of \$139,004,188 for last year's first four months.

Ninety-four Class I roads reported net deficits for April, while 38 reported net incomes; in April, 1938, there were 102 net deficits and 30 net incomes. The consolidated statement and that showing the net incomes or net deficits of roads having annual operating revenues above \$25,000,000 are given in the accompanying tables.

## P. R. R. and Central to Run All-Coach Fast Trains

New fast, deluxe, all-coach trains with lounge-buffet facilities, porter service, individual adjustable seats and other former extra-fare amenities to which the coach traveler is becoming heir, are to be operated by the New York Central and the Pennsylvania, respectively, between New York and Chicago starting July 28. Representing the first long-distance exclusively-coach trains established by any east-

ern carrier, the new runs will be offered to patrons at the new low-rate round-trip coach fare of \$30.90 (at the rate of 1.7 cents per mile) between the two termini which became effective June 30, with no additional charges for special features.

Both trains will be air-conditioned throughout; provide special dimmed illumination during sleeping hours; and carry a lounge car open for use by all passengers. As far as is now known the Central's train eastbound will leave Chicago in the mid-afternoon with early morning arrival at New York; westbound it will leave New York late afternoon with arrival in Chicago early enough to afford connection with principal western trains.

The P. R. R.'s overnight runs, to be known as the "Trail Blazer" in both directions, will cover the westbound trip in 17 hr. and the eastbound in 17 hr. 25 min., averaging a little more than an hour longer than the fastest schedule over the route—that of the extra-fare "Broadway Lim-

ited." The westbound "Trail Blazer" will leave New York at 6:25 p. m. (d. s. t.) and arrive at Chicago at 10:25 a. m. Eastbound the train will leave Chicago at 2:30 p. m. (d. s. t.) and arrive at New York at 8:55 a. m. During the period of the World's Fair the train will continue to the World's Fair Station of the Long Island arriving at 9:30 a. m. Passengers desiring to continue to the World's Fair Station may make use of a baggage checking service at the Pennsylvania Station, New York, whereby parcel room checks will be so issued that passengers will not have to leave the cars. Arrangements will be made on the trains for a through ticket collection at a single "lift" to avoid disturbance of passengers after the lights have been dimmed for the night.

The "Trail Blazer" will start running in both directions as an eight-car train. Coaches will be added with growth in patronage. Initial equipment will include four coaches of the Pennsylvania's new "long-distance design," fitted with individual numbered seats, numbering 68 to a car. The rear car of each train will be a specially-designed and-built observation-buffet-broiler-lounge car, seating 31 passengers in the observation section and 16 at tables for buffet service. Radio programs will be given in the observation-lounge sections. Dining car facilities of both trains will consist of newly-designed "twin units" each consisting of one car equipped entirely as a dining room with capacity for 68 persons while the adjacent car will be devoted to kitchen facilities and dormitory quarters for the crew. Table d'hôte dinners will be 75 cents and breakfasts 50 cents and 65 cents, in addition to a la carte offerings.

## July Fan Trips

The Reading and Lehigh & New England will operate a 250-mile "Rail Ramble" out of Philadelphia on July 16. The itinerary provides a run to Norristown, Pa., thence over the Reading's Stony Creek branch to Lansdale, thence over the Bethlehem branch to Bethlehem. After inspection of the Central of New Jersey enginehouse the special train will proceed over the Lehigh & New England to Pen Argyl, whence after a stop to allow inspection of Lehigh & New England facilities, the train will proceed to Tamaqua and return to Philadelphia via the Reading. The trip has been priced at \$3.

The New York, New Haven & Hartford and the Boston & Maine will operate a 430-mile railroad enthusiasts' trip on July 16 out of New York, covering Connecticut, Central Massachusetts and the Connecticut River valley. Leaving New York the train will proceed via the Shore Line to New London, Conn., thence to South Worcester, Mass., where it will transfer to the tracks of the Boston & Maine and proceed via Gardner, Mass., and East Deerfield to Springfield and return via the New Haven to New York. The trip has been priced at \$4.50.

## Pennsylvania's New York Station Dissected in July "Fortune"

What New Yorkers familiarly call "Penn Station" is featured in a 2½-page article



appearing in the "all New York City" July issue of "Fortune" magazine. Herein little-known facts about the 12-acre New York passenger "depot" of the Pennsylvania are set forth in a way to set off the terminal as unique even in the city of wonders. He who reads will discover, among other things, that 54,000,000 passengers passed through the station last year; that 2,200 P. R. R. employees work there under Station Master Hawkes, and that 20 lb. of discarded gum are scraped from its floors nightly.

## Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

- AIR BRAKE ASSOCIATION.**—R. P. Ives, Westinghouse Air Brake Co., 350 Fifth Ave., New York, N. Y.
- ALLIED RAILWAY SUPPLY ASSOCIATION.**—J. F. Gettrust, P. O. Box 5522, Chicago, Ill. Annual meeting, October 17-19, 1939, Hotel Sherman, Chicago, Ill.
- AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.**—W. R. Curtis, F. T. R., M. & O. R. R., 327 S. La Salle St., Chicago, Ill.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.**—E. P. Soebbing, 1431-B Railway Exchange Bldg., St. Louis, Mo.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.**—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.**—F. O. Whiteman, Union Station, St. Louis, Mo. Annual meeting, 1940, Chicago, Ill.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.**—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Annual meeting, January 19-20, 1940.
- AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.**—F. R. Berger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill. Annual meeting, October 9-12, 1939, Hotel St. Francis, San Francisco, Cal.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.**—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill. Annual meeting, October 17-19, 1939, Hotel Stevens, Chicago, Ill.
- AMERICAN RAILWAY CAR INSTITUTE.**—W. C. Tabbert, 19 Rector St., New York, N. Y.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.**—J. M. Hurley, N. Y. O. & W. Ry., Middletown, N. Y.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.**—Works in co-operation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.
- AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.**—M. W. Jones, Baltimore & Ohio R. R., 1105 B. & O. R. Bldg., Baltimore, Md. Fall meeting, White Sulphur Springs, W. Va.
- AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.**—G. G. Macina, C. M., St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill.
- AMERICAN SHORT LINE RAILROAD ASSOCIATION.**—R. E. Schindler, Tower Bldg., Washington, D. C. Annual meeting, October 23-24, 1939, Hotel Continental, Kansas City, Mo.
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—C. E. Davies, 29 W. 39th St., New York, N. Y. Semi-annual meeting, July 10-15, 1939, Fairmont Hotel, San Francisco, Cal. Fall meeting, September 4-8, 1939, Hotel Pennsylvania, New York, N. Y. Annual meeting, December 4-8, 1939, Hotel Bellevue-Stratford, Philadelphia, Pa.
- Railroad Division.**—Marion B. Richardson, 21 Hazel Ave., Livingston, N. J.
- AMERICAN TRANSIT ASSOCIATION.**—Guy C. Hecker, 292 Madison Ave., New York, N. Y. Annual meeting, August 9-16, 1939, Biltmore Hotel, Los Angeles, Cal., and Fairmont Hotel and Mark Hopkins Hotel, San Francisco, Cal.
- AMERICAN WOOD PRESERVERS' ASSOCIATION.**—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C. Annual meeting, January 23-25, 1940, Hotel Coronado, St. Louis, Mo.
- ASSOCIATION OF AMERICAN RAILROADS.**—H. J. Forster, Transportation Bldg., Washington, D. C.
- Operations and Maintenance Department.**—Transportation Bldg., Washington, D. C.
- Operating-Transportation Division.**—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
- Operating Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Transportation Section.**—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
- Fire Protection and Insurance Section.**—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y.
- Freight Station Section.**—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
- Medical and Surgical Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Protective Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Safety Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Telegraph and Telephone Section.**—W. A. Fairbanks, 30 Vesey St., New York, N. Y.
- Engineering Division.**—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.
- Construction and Maintenance Section.**—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.
- Electrical Section.**—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Next meeting, October 24, 1939, Hotel Sherman, Chicago, Ill.
- Signal Section.**—R. H. C. Balliet, 30 Vesey St., New York, N. Y.
- Mechanical Division.**—V. R. Hawthorne, 59 E. Van Buren St., Chicago, Ill.
- Electrical Section.**—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill. Annual meeting, October 24-26, 1939, Hotel Sherman, Chicago, Ill.
- Purchases and Stores Division.**—W. J. Farrell, 30 Vesey St., New York, N. Y.
- Freight Claim Division.**—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill.
- Motor Transport Division.**—George M. Campbell Transportation Bldg., Washington, D. C.
- Car-Service Division.**—E. W. Coughlin, Transportation Bldg., Washington, D. C.
- Finance, Accounting, Taxation and Valuation Department.**—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.
- Accounting Division.**—E. R. Ford, Transportation Bldg., Washington, D. C.
- Treasury Division.**—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting, September 21-22, 1939, Hotel Pennsylvania, New York, N. Y.
- Traffic Department.**—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.
- ASSOCIATION OF RAILWAY CLAIM AGENTS.**—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, 1940, Providence, R. I.
- BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.**—W. S. Carlisle, National Lead Company, 900 W. 18th St., Chicago, Ill. Meets with American Railway Bridge and Building Association.
- CANADIAN RAILWAY CLUB.**—C. R. Crook, 4468 Oxford Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month except June, July and August, Windsor Hotel, Montreal, Que.
- CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.**—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel Mayfair, St. Louis, Mo.
- CAR DEPARTMENT OFFICERS' ASSOCIATION.**—Frank Kartheiser, Chief Clerk, Mechanical Dept., C. B. & Q., Chicago, Ill. Annual meeting, October 17-19, 1939, Hotel Sherman, Chicago, Ill.
- CAR FOREMEN'S ASSOCIATION OF CHICAGO.**—G. K. Oliver, 2514 W. 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.
- CENTRAL RAILWAY CLUB OF BUFFALO.**—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.
- EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.**—J. T. Bougher, 424 W. 33rd St., (11th floor), New York, N. Y. Next meeting, September 28, 1939, New York, N. Y.
- INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION.**—F. T. James, Master Mechanic, Delaware, Lackawanna & Western, Hoboken, N. J. Annual meeting, October 17-19, 1939, Hotel Sherman, Chicago, Ill.
- INTERNATIONAL RAILWAY MASTER BLACKSMITHS' ASSOCIATION.**—W. J. Mayer, Michigan Central R. R., Detroit, Mich. Annual meeting, October 17-19, 1939, Hotel Sherman, Chicago, Ill.
- MASTER BOILER MAKERS' ASSOCIATION.**—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y. Annual meeting, October 17-19, 1939, Hotel Sherman, Chicago, Ill.
- NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.**—Clyde S. Bailey, New Post Office Bldg., Washington, D. C. Annual meeting, August 22-25, 1939, Olympic Hotel, Seattle, Wash.
- NATIONAL RAILWAY APPLIANCE ASSOCIATION.**—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill. Exhibit in connection with A. R. E. A. Convention, March 11-14, 1940, International Amphitheatre, Chicago, Ill.
- NEW ENGLAND RAILROAD CLUB.**—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.
- NEW YORK RAILROAD CLUB.**—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Friday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.
- PACIFIC RAILWAY CLUB.**—William S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings, second Thursday of each month, alternately at San Francisco and Oakland, except June at Los Angeles and October at Sacramento.
- RAILWAY BUSINESS ASSOCIATION.**—P. H. Middleton, First National Bank Bldg., Chicago, Ill. Annual dinner, November, 1939, Hotel Stevens, Chicago, Ill.
- RAILWAY CLUB OF PITTSBURGH.**—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.
- RAILWAY ELECTRICAL SUPPLY MANUFACTURERS' ASSOCIATION.**—J. Mc C. Price, Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill. Next meeting, October 24-26, 1939, Hotel Sherman, Chicago, Ill.
- RAILWAY FIRE PROTECTION ASSOCIATION.**—(See Association of American Railroads.—Fire Protection and Insurance Section.)
- RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.**—T. Duff Smith, 1255 Old Colony Bldg., Chicago, Ill. Annual meeting, October 17-19, 1939, Hotel Sherman, Chicago, Ill.
- RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.**—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa.
- RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.**—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone section of A. A. R.
- RAILWAY TIE ASSOCIATION.**—Roy M. Edmonds, 903 Syndicate Trust Bldg., St. Louis, Mo.
- ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.**—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill. Annual meeting, September 19-21, 1939, Hotel Stevens, Chicago, Ill.
- SIGNAL APPLIANCE ASSOCIATION.**—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R., Signal Service.
- SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.**—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.
- SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.**—D. W. Brantley, C. of Ga., Ry., Savannah, Ga. Semi-annual meeting, July 27, 1939, Panama City, Fla.
- TORONTO RAILWAY CLUB.**—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.
- TRACK SUPPLY ASSOCIATION.**—Lewis Thomas, Q. & C. Company, 59 E. Van Buren St., Chicago, Ill. Meets with Roadmasters' and Maintenance of Way Association.
- UNITED ASSOCIATIONS OF RAILROAD VETERANS.**—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y. Annual meeting, October 14-15, 1939, Hotel Roanoke, Roanoke, Va.
- WESTERN RAILWAY CLUB.**—W. L. Fox (Executive Secretary), Room 822, 310 South Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

## Equipment and Supplies

### Equipment Orders Up in First Half

Locomotive buying double 1938's first half; passenger cars show 26 P. C. gain

Domestic equipment orders for a total of 8 locomotives (3 steam and 5 Diesel-electric), 1,324 freight cars, and 14 passenger-train cars were placed during June.

#### Domestic Equipment Orders Reported in Issues of the Railway Age in June, 1939 (Including July 1)

LOCOMOTIVES				
Date	Name of Company	No.	Type	
June 24	Green Bay & Western	3	2-8-2	American Locomotive Co.
June 24	Chicago, Rock Island & Pacific	1	Diesel-electric	American Locomotive Co.
July 1	Florida East Coast	2	Diesel-electric	Electro-Motive Corp.
July 1	Kansas City Southern	1	Diesel-electric Sw.	Electro-Motive Corp.
July 1	Phelps Dodge Corp.	1	Diesel-electric	Electro-Motive Corp.
FREIGHT CARS				
June 10	Aluminum Co. of America	10	Cov. Hopper	Pullman-Standard
June 10	Republic Steel Corp.	4	Air-dump	Pressed Steel Car Co.
June 10	Lehigh & New England	50	Bulk cement	American Car & Foundry
June 17	Missouri-Illinois (Mo. Pac.)	125	Box	Mt. Vernon Car Mfg. Co.
		25	Gondola	Mt. Vernon Car Mfg. Co.
July 1	Western Maryland	500	Box	Pressed Steel Car Co.
		500	Hopper	Bethlehem Steel Co.
		100	Gondola	Greenville Steel Car Co.
		10	Flat	Greenville Steel Car Co.
PASSENGER-TRAIN CARS				
July 1	Florida East Coast	2	Baggage-Chair	Edward G. Budd Mfg. Co.
		8	Chair	
		2	Dining	
		2	Observation-Lounge	

These purchases bring the total equipment orders for the first half of the year to a total of 152 locomotives, 9,077 freight cars and 135 passenger-train cars. The locomotive total shows a more than 100 per cent gain over the 75 locomotives ordered in the first half of 1938; freight car orders show a 13 per cent increase over the 8,024 cars ordered in the corresponding half of 1938; and the 135 passenger-train cars purchased constitute a 26 per cent gain over the 107 passenger-train cars booked in 1938's first half.

No export orders were placed during the month. Totals in this field for the first six months of the year stand at 4 locomotives (2 steam and 2 Diesel-electric) and 50 freight cars ordered, as compared with a total of 9 locomotives and 292 freight cars ordered during the corresponding half of 1938.

Canadian builders received no orders during the month. Since the first of the year these builders have received orders for a total of 2,075 freight cars and 15 passenger-train cars. During the corresponding period of 1938 Canadian builders received orders for 35 locomotives, 4,829 freight cars and 19 passenger-train cars.

There are outstanding to date domestic inquiries for or proposed purchases of a total of 31 locomotives (7 steam and 24

Diesel-electric and others), 3,520 freight cars and 26 passenger cars.

The carriers ordered 13,200 tons of rail during June. The total for the first half of the year is thereby brought to 515,808 tons or almost three times the total of 188,252 tons ordered during the corresponding half of 1938.

#### PASSENGER CARS

THE SEABOARD AIR LINE is inquiring for one or two light-weight coach trains of seven cars each.

THE BOARD OF TRANSPORTATION, CITY OF NEW YORK, held a preliminary hearing on the morning of July 7, at 250 Hudson street, to decide on the draft form of con-

## Supply Trade

### A. C. F. Annual Report

The 40th annual report of the American Car & Foundry Co., for the fiscal year ended April 30, 1939, shows, in the consolidated income account of the company and its wholly-owned subsidiaries, a net loss for the year, after all charges, of \$1,662,692, as compared with earnings of \$753,407 for the preceding fiscal year. Depreciation charges for the year remained at approximately \$1,600,000. In his statement to stockholders Charles J. Hardy, president, pointed out that of the consolidated net loss shown all but \$65,374 is accounted for by the charge of depreciation. He also reported that the management expects in the near future to be able to lay before the stockholders a resume of a study by Coverdale & Colpitts which will be in effect an inventory of all the tangible property of the company for the purpose of affording an acceptable basis for a yearly charge for depreciation.

With respect to business outlook, Mr. Hardy was of the opinion that "there seems really to be a brightening of the skies so far as concerns the general railway situation," citing the recent message of President Roosevelt to Congress recommending legislation which would, among other things, make available during three years a maximum of \$500,000,000 for the purchase of railroad equipment. Said he further on this: "What will be the reaction of the Congress, and of the railroads, to this recommendation cannot, of course, now be predicted,—but it at least affords ground for the hope that improved conditions for the line of industry in which your company is principally engaged are coming measurably nearer."

**B. M. Horter**, manager of the resale sales division of **Cutler-Hammer, Inc.**, Milwaukee, Wis., has been appointed general sales manager for the company.

**Lester M. Curtiss**, assistant general superintendent of the **Lukens Steel Company**, Coatesville, Pa., has been appointed general superintendent in charge of all operations of the company. He succeeds **G. Donald Spackman**, who has been granted a leave of absence on account of ill health. Mr. Spackman will continue to serve the company in an advisory capacity, and will resume active duty when his health permits.

A license to practice certain patented processes by furnishing sodium hexametaphosphate in water treatment formulas has been granted the **Dearborn Chemical Company** through arrangements made with Calgon, Inc., and associated companies, who control the patents. Sodium hexametaphosphate is a chemical that is effective in preventing the precipitation of calcium carbonate at all temperatures up to 212 deg. F.

#### IRON AND STEEL

THE ST. LOUIS-SOUTHWESTERN has been authorized by the federal district court to spend \$342,392 to purchase 112-lb. rails for relaying 20 miles of line between Bests, Ark., and Camden.

#### SIGNALING

MARYLAND.—Sealed proposals for furnishing and delivering signal materials for installation of flashing light type highway crossing signals on federal aid grade crossing projects at ten different locations in Alleghany county, Md., will be received at the office of the State Roads Commission, Federal Reserve Bank building, Calvert and Lexington streets, Baltimore, Md., until 12 o'clock noon, July 12.

#### MOTOR VEHICLES

SAFEGWAY TRAILS, INC., has received delivery of two 35-passenger buses from the a. c. f. Motors Company.



## Financial

**BINGHAM & GARFIELD.—Notes.**—Division 4 of the Interstate Commerce Commission has dismissed, at this company's request, its application of April 3, 1939, asking for authority to issue during the next five years \$1,000,000 of 10-year two per cent notes.

**CHICAGO & NORTH WESTERN.—Reorganization.**—The Interstate Commerce Commission on June 29 heard oral argument on Examiner J. V. Walsh's proposed plan of reorganization for this company. Samuel H. Cady, vice president and general counsel for the company, urged the commission not to wipe out the present preferred and common stock as proposed in Mr. Walsh's plan. Counsel for the insurance groups told the commission that there was no value remaining in these stocks and that they should be eliminated from the new capital structure. An early decision by the commission is expected.

**ERIE.—R. F. C. Loan.**—The Chicago & Erie, a wholly-owned subsidiary of the Erie, has applied to the Reconstruction Finance Corporation for a loan and to the Interstate Commerce Commission for the approval of a loan of \$7,500,000. The proceeds of the loan plus \$400,000 will be used by the Chicago & Erie to purchase all the outstanding stock of the Cleveland & Mahoning Valley.

**LEHIGH VALLEY.—Bonds.**—Division 4 of the Interstate Commerce Commission has authorized this company to pledge and repledge from time to time, to and including December 31, 1939, all or any part of \$7,500,000 of general consolidated mortgage five per cent bonds, due 2003, as collateral security for two short-term notes totaling \$1,362,500, or for any renewals thereof, in whole or in part.

**MAINE CENTRAL.—Equipment Trust Certificates.**—This road has asked the Interstate Commerce Commission to modify its order of March 24 in Finance Docket No. 12324 so as to reduce from \$1,250,000 to \$1,230,000 the amount of 3¼ per cent equipment trust certificates which the applicant was authorized to assume liability for.

**NEW YORK, NEW HAVEN & HARTFORD.—Suit Concerning Old Colony Lease.**—The Bankers Trust Company of New York was named respondent in a suit brought by the trustees of the Old Colony, a former leased line of the New Haven, in the Suffolk County Superior Court of Massachusetts, on July 3, to recover the sum of \$17,000,000, comprising \$13,000,000 of damages plus interest of about \$4,000,000, for alleged failure by the trust company as holder of the New Haven leasehold in the Old Colony and the Boston & Providence to fulfill certain obligations under the lease. As alleged in the suit the injury charged includes failure to pay rent for the Old Colony for the period November 30, 1935, to June 3, 1936; failure to pay taxes amounting to \$1,104,618; failure to return property to the Old Colony upon

cancellation of the lease on June 3, 1936, and failure between October 24, 1935, and June 3, 1936, to operate the road, furnish necessary equipment and maintain the property in good condition. No date has been set for the hearing.

**RIO GRANDE, MICOLITHIC & NORTHERN.—Abandonment.**—Division 4 of the Interstate Commerce Commission has authorized this company to abandon its entire line extending from Mica, Tex., southerly to Micolithic, 6.4 miles.

**ST. LOUIS, SAN FRANCISCO & TEXAS.—Abandonment by Gulf, Texas & Western.**—Division 4 of the Interstate Commerce Commission has authorized the Gulf, Texas & Western to abandon the entire line and the St. Louis, San Francisco & Texas to abandon the operation of the former's entire line extending from Seymour, Tex., to Salesville Junction, 98.5 miles. At the same time the commission authorized the St. Louis, San Francisco & Texas to abandon operation, under trackage rights, over the part of the Weatherford, Mineral Wells & Northwestern extending from Salesville Junction, Tex., to Mineral Wells, 8.7 miles.

**SOUTHERN.—Acquisition.**—This company has asked the Interstate Commerce Commission for authority to purchase the properties of the Northern Alabama.

**SOUTHERN PACIFIC.—Abandonment.**—This company has asked the Interstate Commerce Commission for authority to abandon a branch line extending from Buchli, Calif., to West Napa, 6.4 miles.

**SOUTHERN PACIFIC.—Abandonment by the Clackamas Eastern.**—The Clackamas Eastern has asked the Interstate Commerce Commission for authority to abandon a line extending from Clackamas, Ore., to Swift, 17 miles.

**TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS.—Competitive Bidding on Bonds.**—Competitive bidding on a forthcoming \$7,000,000 refunding bond issue of this road, which is advocated by the officers of some of the 15 proprietary companies constituting the association and urged by R. R. Young, chairman, Alleghany Corporation, as reported in last week's issue, is opposed by Harold Stanley, president, Morgan Stanley & Co., New York, in a letter to P. J. Watson, Jr., president of the terminal association. Herein it was indicated that Morgan Stanley & Co., together with Kuhn, Loeb & Co., who have been negotiating with the association concerning private sales of the issue, would withdraw from the field if the board should decide to throw open the issue to competitive bidding.

### Average Prices of Stocks and Bonds

	July 5	Last week	Last year
Average price of 20 representative railway stocks..	27.74	28.34	27.23
Average price of 20 representative railways bonds..	58.00	58.82	58.86

### Dividends Declared

Norfolk & Western.—\$2.50, quarterly, payable September 19 to holders of record August 31;

Preferred, \$1.00, quarterly, payable August 19 to holders of record July 31.

Providence & Worcester.—\$1.50, payable July 8 to holders of record June 28.

Reading Company.—25¢, quarterly, payable August 10 to holders of record July 13; First Preferred, 50¢, quarterly, payable September 14 to holders of record August 24; Second Preferred, 50¢, quarterly, payable October 12 to holders of record September 21.

## Construction

**KANSAS CITY TERMINAL.**—This company has asked the Interstate Commerce Commission to extend until December 31, the date on which the construction of an extension in Kansas City, Mo., must be completed.

**NEW YORK CENTRAL AND THE TOLEDO, ANGOLA & WESTERN.**—A contract amounting to \$113,584 has been awarded the C. B. Moon Company, Cleveland, Ohio, for the construction of a highway underpass and approaches in Toledo, Ohio, under one track of the N. Y. C. and one track of the T. A. & W. The bridge, which will cost approximately \$60,000, will consist of one 52-ft. steel plate girder span on concrete abutments and will provide for a 40-ft. clear roadway with a 14-ft. vertical clearance and 6-ft. walks on each side.

**PANHANDLE & SANTA FE.**—Contracts totalling \$215,064 have been awarded the Morgan Construction Company, Dallas, Tex., and T. M. Brown & Sons, Archer City, Tex., by the State Highway Department of Texas for the construction of an overhead highway bridge and adjacent road construction for state highway No. 117 over a track of the P. & S. F. just south of Borger, Tex. The bridge, which will cost \$40,350, will consist of five 50-ft. and two 52-ft. I-beam spans, providing a clear roadway width of 27 ft.

**PENNSYLVANIA.**—A contract amounting to \$121,729 has been awarded George B. Herring & Sons, Mansfield, Ohio, for the construction of a highway overpass for the Mansfield-Crestline road over the tracks of the Pennsylvania in Hamilton County. The bridge will consist of four continuous steel plate girder spans of the following lengths: 85 ft., 105 ft., 86 ft. 6 in., and 68 ft., with a concrete deck and substructure, and will provide a 24-ft. roadway and one 4-ft. sidewalk.

**ST. LOUIS SOUTHWESTERN.**—A contract amounting to approximately \$35,000 has been awarded the Wisconsin Bridge and Iron Company, Chicago, for the construction of extensions to the machine shop and boiler shop at Pine Bluff, Ark.

**SPOKANE, PORTLAND & SEATTLE.**—A contract has been awarded George Buckler, Vancouver, B. C., for grading and driving foundation piling for a 500,000-bushel addition to the grain elevator of this road at Vancouver, which is leased to the Archer-Daniels-Midland Company. Other contracts for work on this improvement which it is estimated will cost \$110,000, will be let when plans for the concrete work are completed.

## Railway Officers

### EXECUTIVE

**John H. W. Ingersoll**, treasurer of the Midland Valley, the Kansas, Oklahoma & Gulf and the Oklahoma City-Ada-Atoka, has been elected also a vice-president, with headquarters as before at Philadelphia, Pa.

**G. C. Jefferis**, whose promotion to assistant to the vice-president of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, was announced in the *Railway Age* of July 1, was born in Philadelphia, Pa., on September 27, 1889, and entered railway service on December 4,



G. C. Jefferis

1903, as a telegraph operator on the Pennsylvania. On March 28, 1911, he went with the Santa Fe as a chainman at Amarillo, Tex., and later served at various places in Texas and New Mexico in the engineering and maintenance of way departments as a rodman, transitman, draftsman, assistant extra gang foreman and an extra gang foreman. In August, 1916, Mr. Jefferis was promoted to roadmaster, with headquarters at Plainview, Tex., and on June 16, 1917, he was further advanced to division engineer, with headquarters at Clovis, N. M. In February, 1924, he was promoted to assistant superintendent of the Middle division, with headquarters at Newton, Kan., and in September, 1935, he was advanced to superintendent of the Slaton division, with headquarters at Slaton, Tex. Mr. Jefferis was transferred to the Oklahoma division, with headquarters at Arkansas City, Kan., on July 25, 1936, and on July 1, 1938, he was promoted to assistant general manager of the Northern district, Western lines, of the Santa Fe, with headquarters at La Junta, Colo., the position he held at the time of his recent promotion.

### FINANCIAL, LEGAL AND ACCOUNTING

**W. M. Templeton**, secretary to the president of the Chicago & Eastern Il-

linois, has been appointed assistant secretary, with headquarters as before at Chicago, and **N. E. Helme**, assistant secretary and assistant treasurer, has been appointed assistant treasurer.

**E. S. MacWhinney** has been elected secretary of the Nevada Northern, with headquarters at New York, succeeding **A. J. Ronaghan**.

**O. G. Harwood** has been appointed auditor of the Utah Idaho Central, with headquarters at Ogden, Utah, succeeding **E. L. Morris**.

**R. S. Shapard**, general solicitor of the Texas & Pacific, with headquarters at Dallas, Tex., has been promoted to general counsel, with the same headquarters, succeeding to the duties of **T. D. Gresham**, vice-president and general counsel, who has resigned and **Samuel W. Lancaster**, assistant to the general solicitor has been promoted to general attorney, a newly created position, with headquarters as before at Dallas. **Robert Thompson**, commerce attorney, has been appointed general commerce counsel, a new title with headquarters as before at Dallas, and **M. E. Clinton** has been appointed assistant general attorney at that point.

**W. J. Cherry**, auditor of overcharge claims of the Canadian Pacific, with headquarters at Montreal, Que., retired on June 30 under the pension regulations, after more than 52 years of service. The office of the auditor of overcharge claims has been merged with that of **J. Lummis**, auditor of freight receipts. Jurisdiction over the accounting for the revenues of the communications (telegraph) department has been transferred from Mr. Lummis to **R. T. Hooper**, auditor of miscellaneous accounts. Mr. Cherry joined the Canadian Pacific in January, 1887, and after service as a junior at Montreal and Ottawa in the offices of the freight traffic manager and superintendent's office, he went to the office of the freight claims auditor at Montreal in 1891 as a clerk. Mr. Cherry became claim investigator in the latter office in 1897, clerk in 1901, chief clerk in 1907, and assistant freight claims auditor in 1913. He became auditor of overcharge claims in 1925, the position he held until his retirement.

### OPERATING

**R. P. Gribben** has been appointed superintendent freight transportation, Ohio Central lines, of the New York Central, with headquarters at Cleveland, Ohio.

**F. C. Gorom**, master mechanic of the Great Western, has been appointed superintendent and master mechanic, with headquarters as before at Loveland, Colo., succeeding to the duties of **C. E. Angove**, who retired on July 1, after more than 36 years of service.

**R. D. Clousing**, transportation inspector on the Eastern and Kansas City divisions of the Eastern lines of the Atchison, Topeka & Santa Fe, has been promoted to general transportation inspector, Eastern district, Eastern lines, with headquarters as

before at Topeka, Kan., succeeding **Frank Wood**, who retired on July 1.

**Walter O. Teufel**, master mechanic on the Pennsylvania at Columbus, Ohio, has been promoted to superintendent of the Indianapolis division, with headquarters at Indianapolis, Ind., succeeding **William D. Supplee**, who has been transferred to the Renovo division, with headquarters at Erie, Pa., replacing **E. B. John**, who has been appointed general agent at Erie, a newly created position.

**William Bartley** has been promoted to assistant superintendent of transportation of the New York, Chicago & St. Louis (Nickel Plate), with headquarters at Cleveland, Ohio, a newly created position. Mr. Bartley will succeed to the duties of **John F. Durkin**, superintendent of car service, whose death on June 16 was announced in the *Railway Age* of June 24, and the position of superintendent of car service has been abolished.

**W. H. Marlin**, district road foreman of engines on the Southern Pacific at Los Angeles, Cal., has been promoted to assistant superintendent on the Salt Lake division, with headquarters at Sparks, Nev., relieving **S. H. Bray**, who has been transferred to the San Joaquin division, with headquarters at Bakersfield, Cal. Mr. Bray replaces **B. W. Mitchell**, who has been transferred to the Los Angeles division, with headquarters at Los Angeles, succeeding **H. A. Culp**, who retired on July 1.

**R. E. Orr**, whose retirement as superintendent of the Stratford division of the Canadian National, with headquarters at Stratford, Ont., was noted in the *Railway Age* of July 1, entered railroad service as an operator at Lacolle, Que., in March, 1896. Mr. Orr served in that capacity in the Montreal district and the Belleville division and in January, 1904, was appointed despatcher. In April, 1916, he became acting trainmaster at Lindsay, N. B., and was promoted to assistant superintendent at Lindsay a year later. In July, 1927, Mr. Orr was transferred in the same capacity to Belleville, Ont., where he remained until January, 1937, when he was appointed superintendent of the Stratford division, the position he held until his retirement.

**L. U. Morris**, whose retirement on July 1 as assistant general manager on the Southern Pacific, with headquarters at San Francisco, Cal., was announced in the *Railway Age* of June 24, was born at Winfield, Kan., on November 7, 1873, and entered railway service at the age of 15 years as an office boy in the office of the superintendent of the Atchison, Topeka & Santa Fe at San Marcial, N. M. Later he was advanced successively through the positions of telegraph operator, station agent, brakeman, conductor, trainmaster and division superintendent at Wellington, Kan. Mr. Morris left the service of the Santa Fe in 1905 to become division superintendent on the El Paso & Southwestern (now part of the Southern Pacific), and in 1915 he was promoted to general superintendent. In 1924, soon after the E. P.



& S. W. was absorbed by the Southern Pacific, he was appointed superintendent of the Rio Grande division of the Southern Pacific, and in 1928 he was transferred to Los Angeles, Cal. On January 1, 1931, Mr. Morris was advanced to assistant general manager of the Northern district, with headquarters at Sacramento, Cal. His headquarters were later transferred to San Francisco.

**John A. Gillies**, whose promotion to general manager of the Western lines of the Atchison, Topeka & Santa Fe, with headquarters at Amarillo, Tex., was announced in the *Railway Age* of July 1, was born at Winnipeg, Man., on August 15, 1889, and entered railway service on June 15, 1906, as a chainman on the Santa Fe in New Mexico. He advanced through various positions in the engineering department, including those of rodman and transitman, and on May 1, 1915, he was further promoted to district engineer of the Southern district, with headquarters at Amarillo, later being transferred to the Northern district, with headquarters at La Junta, Colo. On October 1, 1918, he was promoted to trainmaster on the Western



John A. Gillies

division at Dodge City, Kan., and on May 15, 1923, he was promoted to assistant superintendent of that division, with the same headquarters. Mr. Gillies was further advanced to superintendent of the Slaton division on November 15, 1928, and four years later he was transferred to the Colorado division, with headquarters at Pueblo, Colo. On January 10, 1937, he was promoted to assistant general manager of the Northern district of the Western lines, with headquarters at La Junta and on July 1, 1938, he was transferred to the Eastern district of the Eastern lines, with headquarters at Topeka, Kan., the position he held at the time of his recent promotion.

**P. F. O'Sullivan**, whose promotion to assistant general manager on the Atchison, Topeka & Santa Fe, with headquarters at Topeka, Kan., was announced in the *Railway Age* of July 1, was born at Hutchinson, Kan., on March 17, 1886, and attended St. Benedicts College, Atchison, Kan. He entered railway service on August 27, 1907, as a clerk in the track de-

partment of the Santa Fe at Hutchinson and in 1909, he became a statistician at La Junta, Colo. Two years later he was sent



P. F. O'Sullivan

to Newton, Kan., as a transportation clerk in the office of the general superintendent and in 1916, he was promoted to chief clerk in that office. Mr. O'Sullivan was advanced to chief transportation clerk in the office of the general manager at Topeka in 1920, and in 1923 and 1924 he served as transportation inspector on the Oklahoma and Illinois divisions, then being promoted to trainmaster on the latter division. On October 1, 1937, he was further advanced to superintendent of the Southern Kansas division, with headquarters at Chanute, Kan. He was transferred to Arkansas City, Kan., in 1938, holding that position at the time of his recent promotion.

**Howard H. Sparling**, whose promotion to superintendent of the Edmonton division of the Canadian National, with headquarters at Edmonton, Alta., was announced in the *Railway Age* of June 17, was born at Rockwood, Ont., on November 18, 1883, and entered railway service in September, 1901, as a telegrapher on the Grand Trunk (now part of the Canadian National). During the next few years he served as a telegraph operator on the



Howard H. Sparling

Michigan Central and the Delaware, Lackawanna & Western and as night manager of the commercial news department of

the Great North Western Telegraph Company at Toronto, Ont. Mr. Sparling returned to the Grand Trunk in January, 1907, as a dispatcher and in July, 1911, he transferred to the Grand Trunk Pacific (now part of the Canadian National) as a dispatcher at Fort William, Ont. On October 23, 1923, he was promoted to night chief train dispatcher at Port Arthur, Ont., and on July 1, 1924, he was advanced to chief dispatcher at Winnipeg, Man., four years later being transferred to Port Arthur. On July 21, 1929, he was promoted to superintendent of transportation at Winnipeg, and from June, 1933, to April, 1937, he was assigned to various duties including chief dispatcher, assistant to the general superintendent of transportation and inspector of train dispatchers. Mr. Sparling was appointed superintendent of transportation at Edmonton, in April, 1937, the position he held until his recent promotion.

## TRAFFIC

**Ivan S. Kearby** has been appointed general agent on the Oklahoma Railway at Oklahoma City, Okla., a newly created position.

**George Hixon**, commercial agent for the Columbus & Greenville at Chattanooga, Tenn., has been promoted to general agent at that point, a change of title.

**Frank L. Coulter**, assistant to the general traffic manager of the St. Louis-San Francisco, with headquarters at St. Louis, Mo., has been promoted to traffic manager at Los Angeles, Cal., a newly-created position.

**B. F. McCoy**, formerly general agent for the Fort Smith & Western at Detroit, Mich., has been appointed assistant general freight agent for the Missouri & Arkansas at that point, a newly-created position.

**J. M. Peters**, general agent on the Chicago & North Western at Lincoln, Neb., has been appointed division freight and passenger agent at Omaha, Neb., and the position of general agent at Lincoln has been abolished.

**Ray E. Deremiah**, general agent on the Chicago, Indianapolis & Louisville, (Monon) at French Lick, Ind., has been promoted to assistant general freight agent with headquarters at Louisville, Ky., replacing **W. H. Robinson**, who retired on July 1.

**J. B. Moore**, general agent in charge of express and baggage for the Atchison, Topeka & Santa Fe, at the Kansas City Union Station, Kansas City, Mo., has been promoted to general baggage agent with headquarters at Topeka, Kan., succeeding **R. S. Gordon**, who retired on July 1.

**A. D. Martin**, assistant passenger traffic manager of the Chicago, Rock Island & Pacific, has been promoted to passenger traffic manager with headquarters as before at Chicago, succeeding **William J. Leahy**, whose retirement on July 1, was announced in the *Railway Age* of that

date. A photograph of Mr. Martin and biographical account of his career appeared in the *Railway Age* of March 18, following his promotion to assistant passenger traffic manager on March 15 of this year.

**P. H. Wunder**, city freight agent on the Illinois Central at New Orleans, La., has been promoted to foreign freight agent at that point, filling a position that has been vacant since the retirement of **G. C. Stubbs** on January 1. **Hugh Hardin**, commercial agent at Buffalo, has been appointed general agent at that point, **S. J. Vaughn**, commercial agent at Cincinnati, Ohio, has been appointed general agent at that address, **F. H. Erhart**, commercial agent at Kansas City, Mo., has been appointed general agent at that point and **C. J. Ryan**, commercial agent at Pittsburgh, Pa., has been appointed general agent at that address.

**J. E. Davis** has been appointed assistant freight traffic manager of the Union Pacific, with headquarters at Omaha, Nebr., as reported in the *Railway Age* of July 1, page 60.

Mr. Davis was born at Franklin, Ind., on January 27, 1884, and entered railway



**J. E. Davis**

service in 1902 with the Cleveland, Cincinnati, Chicago & St. Louis (Big Four) at Franklin. In 1906 he went with the Southern Pacific at Portland, Ore., and from 1908 to 1913, he was connected with the joint general offices of the Union Pacific and the Southern Pacific at Portland, remaining with the Union Pacific at that point when the joint offices were discontinued. Mr. Davis was promoted to assistant general freight agent at Portland in 1922, and in April, 1929, he was advanced to assistant to the freight traffic manager at Omaha. He was further advanced to assistant to the vice-president in charge of traffic in September, 1934, the position he held until his recent appointment.

**Joseph C. Beaumont** has been appointed general freight agent of the Union Pacific, with headquarters at Denver, Colo., succeeding **Kenneth G. Carlson**, as reported in the *Railway Age* of July 1, page 60.

Mr. Beaumont entered the service of the Union Pacific as an office boy in the ac-

counting department in June, 1912. In 1917 and 1918 he served in the world war, returning in 1919 as a clerk in the division



**Joseph C. Beaumont**

accounting office and the following year he was appointed secretary to the division superintendent, later becoming secretary to the freight traffic manager, secretary to the vice-president and chief clerk to the freight traffic manager. In 1933, he was promoted to general agent at Tulsa, Okla., and in August, 1938, he was transferred to Omaha as general agent, freight department. Mr. Beaumont was advanced to assistant general freight agent at Omaha on May 16, the position he held at the time of his recent promotion.

**Harvey E. Lounsbury**, whose promotion to assistant traffic manager on the Union Pacific, with headquarters at Portland, Ore., was announced in the *Railway Age* of July 1, was born at Deer Lodge, Mont., on February 2, 1873, and attended the University of Oregon Law School. He entered railway service in 1887 as an office boy on the Oregon Railroad & Navigation Company (now part of the Union Pacific), later becoming a clerk in the general passenger department. In 1891, he went with the Southern Pacific as a clerk and stenographer and in 1898 he was promoted to traveling freight agent. In



**Harvey E. Lounsbury**

1906, he was advanced to district freight agent. In 1907, Mr. Lounsbury was appointed general agent for the Harriman

lines and in 1910 he was promoted to assistant general freight agent. He returned to the Southern Pacific the following year as a general freight agent and in 1912 he went with the Oregon-Washington Railroad & Navigation Company (now part of the Union Pacific) as general freight agent, with headquarters at Portland, Ore., the position he held until his recent promotion.

## ENGINEERING AND SIGNALING

**Philip M. Stutrud**, whose promotion to assistant chief engineer of the Minneapolis & St. Louis, with headquarters at Minneapolis, Minn., was announced in the *Railway Age* of May 27, was born at Blair, Wis., on July 31, 1893, and attended the University of Minnesota and Chicago Technical College, graduating in civil engineering from the latter in June, 1916. Mr. Stutrud also attended evening school at the Minnesota College of Law, graduating in June, 1930, and was admitted to the Bar of the State of Minnesota in August, 1930. In August, 1916, after previous experience in structural engineering with private concerns in Chicago and St. Paul, Minn., Mr. Stutrud entered railway



**Philip M. Stutrud**

service as a draftsman in the engineering department of the M. & St. L., and served for a time in various capacities, including those of draftsman, assistant engineer and chief clerk. In October, 1929, he was advanced to office engineer, with headquarters at Minneapolis, the position he held at the time of his recent promotion.

**James MacMartin**, whose retirement as chief engineer of the Delaware & Hudson at Albany, N. Y., was noted in the *Railway Age* of July 1, was born on September 12, 1865, at Johnstown, N. Y., and attended Phillips Andover Academy and Rensselaer Polytechnic Institute, Troy, N. Y. Mr. MacMartin entered railroad service in 1890 as draftsman with the Delaware & Hudson at Albany, serving in this capacity and as rodman, levelman and transitman until 1896. He then served until 1899 as assistant engineer and superintendent of construction, D. & H., and from 1899 to 1901 was acting chief engineer. From 1901 to 1909 Mr. MacMartin was chief engineer of the Delaware &



Hudson and from 1909 to 1911 served as vice-president and general manager of the Elnora & Hamilton Contracting Company,



James MacMartin

general railway contractors. From 1911 to 1913 he was construction engineer and assistant chief engineer, Delaware & Hudson, and chief engineer of the Wilkes-Barre Connecting Railway. From 1913 to 1927 he was chief engineer of the D. & H. and of the Wilkes-Barre Connecting Railway and from 1927 until his retirement on July 1, served as chief engineer and chairman of the valuation committee of the Delaware & Hudson and subsidiary companies.

#### MECHANICAL

**John P. Morris**, whose promotion to general assistant, mechanical department, of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, was announced in the *Railway Age* of July 1, was born at Fort Madison, Iowa, on March 4, 1889, and entered the service of the Santa Fe as a machinist apprentice at Fort Madison in 1904. In February, 1911, he was promoted to machinist, and in January, 1916,



John P. Morris

he was advanced to assistant roundhouse foreman. Mr. Morris was promoted to general roundhouse foreman in July, 1917, and to general foreman in April, 1923. On November 1, 1924, Mr. Morris was advanced to master mechanic of the Illinois

division with headquarters at Chicago, and on July 1, 1937, he was appointed mechanical assistant at that point. On April 1, 1938, he was promoted to mechanical superintendent of the Eastern mechanical district of the Eastern lines, with headquarters at Fort Madison, Iowa, the position he held until his recent promotion.

**William H. Clegg**, chief inspector of air brakes and car heating equipment of the Canadian National, with headquarters at Montreal, Que., has been promoted to general superintendent of motive power of the Grand Trunk Western, with headquarters at Battle Creek, Mich., to succeed **Burt J. Farr**, whose death on June 10 was announced in the *Railway Age* of June 17. Mr. Clegg was born at Ledsdon, Yorkshire, England, on March 30, 1882, and entered railway service in 1902, as an air brake repairman on the Canadian Pacific at Winnipeg, Man. From 1906 to 1910, he served as a locomotive fireman, returning in the latter year to his position as air brake repairman at Winnipeg.



William H. Clegg

Later that year he was advanced to air brake foreman at that point and in 1911, he went with the Canadian Northern (now part of the Canadian National system) as air brake foreman at Winnipeg. Mr. Clegg was appointed air brake instructor, with the same headquarters, in 1913, and in 1916, he was transferred to Toronto, Ont. In 1919, Mr. Clegg was promoted to supervisor of air brakes, and the following year he was appointed superintendent of air brakes on the Canadian National with headquarters as before at Toronto. His title was changed to chief inspector of air brakes and car heating equipment, with headquarters at Montreal, in 1923, the position he held at the time of his recent promotion. Mr. Clegg has been president of the Air Brake Association since 1930 and is also at the present time chairman of the Air Brake Committee of the Association of American Railroads.

#### PURCHASES AND STORES

**Frank E. Driscoll**, purchasing agent of the Erie, with headquarters at Cleveland, Ohio, whose retirement was noted in the *Railway Age* of July 1, was born at Depos-

it, N. Y. on January 26, 1882, Mr. Driscoll entered railway service in July, 1893, as a messenger in the telegraph office of the Erie at Susquehanna, Pa., leaving that position in 1896 to continue his schooling at the Laurel Hill Academy, from which institution he was graduated in 1900. On the latter date, he re-entered the service of the Erie as a telegraph operator on the Susquehanna division. In 1901, Mr. Driscoll went with the New York, Chicago & St. Louis (Nickel Plate), as a telegraph operator but shortly thereafter returned to the service of the Erie. In 1902, he entered the service of the Western Union Telegraph Company as a telegraph operator at New York and in June, 1903, he returned to the Erie as a tracing clerk in the purchasing department. In September, 1909, he was promoted to assistant chief clerk and in July, 1915, he was advanced to chief clerk. Mr. Driscoll was promoted to assistant to the purchasing agent in September, 1915, and five years later he was advanced to purchaser. On July 1, 1930, he was further advanced to purchasing agent, the position he held until his retirement.

**F. J. Loughlin** has been appointed assistant to the purchasing agent of the Erie at Cleveland, Ohio, a newly-created position.

#### SPECIAL

**Pedro Perez** has been appointed Latin-American representative of the Baltimore & Ohio, with headquarters at New York.

**Ralph S. Twogood**, assistant engineer on the Southern Pacific at San Francisco, Cal., has been promoted to fuel engineer, with the same headquarters.

**Charles Mauck Kimball**, whose appointment as executive representative of the Southern, with headquarters at Washington, D. C., was reported in the *Railway Age* of May 6, was born on May 28, 1893, at Atlanta, Ga. Mr. Kimball attended the grammar and high schools in Atlanta, business college, School of Commerce and Marist College. He entered the service of the Southern on January 1, 1911, as air brake helper, and held various clerical positions in Atlanta until June, 1917, then serving in the World War. From May, 1919, to February, 1924, Mr. Kimball was assistant chief clerk, Atlanta shops, and from the latter date until February, 1927, acted as chief clerk, Macon shop. He was appointed supervisor of safety in February, 1927, the position he held until his appointment as executive representative at Washington.

#### OBITUARY

**Robert J. Sefton**, general agent for the Chicago Great Western at St. Louis, Mo., died of anemia at the Deaconess hospital in that city on June 23.

**R. E. Kelly**, manager of development and colonization of the Southern Pacific Lines, with headquarters at Chicago, died of a heart attack in Washington, D. C., on June 28.

*Table of Revenues and Expenses begins on next left-hand page*

## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1939

Av. mileage operated during period	Name of road	Operating revenues			Operating expenses			Operating ratio	Net from operation	Net railway operating income	
		Freight	Passenger	Total	Maintenance of way and structures	Equipment	Traffic			1939	1938
171	Akron, Canton & Youngstown..... May	\$142,472	\$36	\$142,508	\$24,664	\$14,907	\$14,611	75.8	\$36,038	\$23,267	\$8,647
171	May	754,034	180	754,214	116,436	84,511	70,886	72.6	216,619	148,769	65,140
959	May	894,440	198,760	1,093,200	216,383	176,011	50,344	81.8	233,216	140,920	33,073
959	May	4,205,226	996,518	5,201,744	868,318	894,874	225,671	81.7	1,122,261	641,949	159,093
13,466	Alton..... May	9,569,326	12,089,005	21,658,331	2,355,366	3,005,046	455,655	90.0	1,204,921	149,228	106,055
13,466	May	44,432,578	6,377,979	50,810,557	8,591,525	14,262,706	2,248,822	88.3	6,554,154	328,579	1,089,121
93	May	100,947	21,312	122,259	15,842	26,844	8,215	86.2	20,111	672,401	6,906
93	May	487,034	112,764	599,798	83,888	130,790	40,285	87.9	86,630	38,294	36,378
133	Western of Alabama..... May	97,052	21,204	118,256	19,371	29,170	8,414	88.4	15,874	2,209	3,439
133	May	487,535	111,009	598,544	92,903	144,565	27,672	85.9	30,405	30,405	36,114
639	Atlanta, Birmingham & Coast..... May	243,616	4,779	248,395	45,049	54,457	40,552	94.7	14,218	8,842	30,482
639	May	1,277,157	145,262	1,422,419	219,276	250,351	120,761	84.0	245,354	130,042	13,090
5,107	Atlantic Coast Line..... May	3,212,558	410,972	3,623,530	434,601	737,201	141,281	75.4	1,008,564	558,564	277,277
343	May	16,235,602	4,050,606	20,286,208	2,116,697	3,687,351	807,063	70.7	6,658,228	4,058,228	2,772,227
343	May	188,605	929	189,534	24,514	31,955	8,002	70.3	57,634	40,634	183,591
343	May	967,545	4,119	971,664	123,744	146,677	40,667	67.8	320,706	203,706	83,469
6,398	Charleston & Western Carolina..... May	974,001	881,143	1,855,144	1,330,547	2,542,560	408,477	81.6	2,123,028	1,254,095	876,626
6,402	May	49,362,465	3,905,343	53,267,808	5,188,391	12,867,975	1,906,532	79.2	11,844,549	7,479,599	5,844,338
24	Baltimore & Ohio..... May	258,394	362,093	620,487	56,207	103,776	5,517	92.9	9,274	18,582	24,554
24	May	454,362	12,711	467,073	95,472	87,042	6,902	95.7	28,715	113,385	148,544
603	Staten Island Rapid Transit..... May	2,725,342	81,310	2,806,652	487,277	438,969	28,399	68.5	153,319	104,385	116,080
603	May	7,438,835	830	7,439,665	451,059	268,291	28,399	60.2	1,153,515	868,168	837,172
224	Bangor & Aroostook..... May	2,511,078	3,405	2,514,483	124,757	268,291	11,411	78.8	160,180	112,752	122,538
224	May	2,798,150	515,398	3,313,548	18,715	26,642	64,213	104.7	119,750	354,962	213,336
1,939	Bessemer & Lake Erie..... May	13,342,384	16,562	13,358,946	484,886	2,976,593	76,005	74.9	4,686,204	3,156,966	1,963,417
1,946	May	76,456	100,948	177,404	18,715	26,642	317,655	73.7	14,020	22,333	30,101
255	Boston & Maine..... May	375,899	81,628	457,527	99,439	36,666	436	104.5	21,972	63,409	92,265
255	May	65,663	65,762	131,425	31,455	201,324	2,101	89.81	6,700	5,498	22,925
37	Burlington, Rock Island..... May	497,485	137,653	635,138	72,743	29,149	9,860	131.2	179,509	52,224	318,139
37	May	1,075,478	68,707	1,144,185	165,226	196,842	48,856	127.8	38,219	38,219	66,074
234	Cambria & Indiana..... May	1,076,478	68,707	1,144,185	165,226	196,842	48,856	70.4	356,266	302,774	204,909
234	May	67,137	6,081	73,218	14,275	21,540	3,560	126.8	22,300	28,785	45,733
91	Canadian Pacific Lines in Vermont..... May	303,664	83,674	387,338	62,552	115,582	307,656	131.2	123,939	158,126	231,277
91	May	1,075,478	68,707	1,144,185	165,226	196,842	48,856	85.3	196,523	82,207	151,054
1,871	Canadian Pacific Lines in Maine..... May	5,112,668	493,902	5,606,570	6,414,816	832,807	261,418	87.7	787,480	226,862	151,054
1,871	May	67,137	6,081	73,218	14,275	21,540	3,560	126.8	22,300	28,785	45,733
711	Central of Georgia..... May	2,147,784	359,195	2,506,979	296,444	434,802	49,638	76.6	629,532	223,626	65,865
712	May	10,460,208	1,690,961	12,151,169	1,244,263	2,470,212	229,478	76.7	3,040,837	1,055,730	201,956
430	Central of New Jersey..... May	437,155	25,660	462,815	77,441	77,239	12,375	77.5	114,522	86,078	43,241
430	May	1,889,846	152,726	2,042,572	333,094	422,605	60,011	86.4	304,509	170,074	7,028
3,110	Central Vermont..... May	5,839,542	273,845	6,113,387	833,839	1,518,272	206,859	75.2	1,586,284	905,920	812,996
3,110	May	3,777,651	1,179,875	4,957,526	4,205,534	9,078,719	1,022,178	69.9	11,341,209	7,265,065	7,063,446
927	Chesapeake & Ohio..... May	3,777,651	1,179,875	4,957,526	4,205,534	9,078,719	1,022,178	85.6	169,737	92,737	47,121
927	May	606,702	106,743	713,445	1,175,719	1,556,928	271,458	81.8	1,114,862	721,862	32,312
927	May	4,747,362	582,078	5,329,440	6,114,677	739,388	271,458	81.8	1,114,862	721,862	32,312
131	Chicago & Eastern Illinois..... May	235,053	Dr. 289	235,053	34,602	57,205	18,789	74.8	64,131	41,838	46,058
131	May	1,379,067	3,731	1,382,798	156,768	331,334	98,560	72.5	401,675	271,069	300,950
8,369	Chicago & Illinois Midland..... May	5,243,093	887,546	6,130,639	6,857,676	1,563,468	217,536	93.2	2,748,845	87,569	311,724
8,378	May	23,406,561	4,108,532	27,515,093	5,081,062	7,376,262	986,416	92.9	2,199,189	769,814	1,932,227
8,931	Chicago & North Western..... May	6,037,314	699,290	6,736,604	1,538,438	1,339,328	272,684	81.0	1,433,759	705,502	378,183
8,935	May	28,791,253	3,176,517	31,967,770	4,746,701	7,050,860	1,232,895	78.6	7,668,178	4,039,114	2,319,395
1,505	Chicago, Burlington & Quincy..... May	1,317,701	29,443	1,347,144	188,709	239,282	59,837	74.6	368,229	274,931	99,090
1,505	May	6,396,810	189,140	6,585,950	944,558	1,184,321	296,170	77.1	1,621,470	1,155,935	243,050
549	Chicago Great Western..... May	642,594	49,562	692,156	766,378	83,768	172,260	83.5	126,690	92,180	4,165
549	May	3,023,884	222,851	3,246,735	3,576,301	393,812	155,244	88.7	404,771	207,716	290,898
549	Chicago, Indianapolis & Louisville..... May	642,594	49,562	692,156	766,378	83,768	172,260	83.5	126,690	92,180	4,165

Continued on next left-hand page





## CARE "PLUS" has built Lima's reputation

Lima's reputation as a builder of locomotives of high operating efficiency and low maintenance cost is based upon the care "Plus" that goes into the manufacture of each Lima-built engine. This results from the special methods and equipment employed by Lima with a view to lowering maintenance costs. An example is the pressing operation illustrated above whereby the rod bushings are burnished to a high finish to provide perfect wearing surfaces and longer lasting bearings.

LIMA LOCOMOTIVE WORKS,



INCORPORATED, LIMA, OHIO

## REVENUES AND EXPENSES OF RAILWAYS

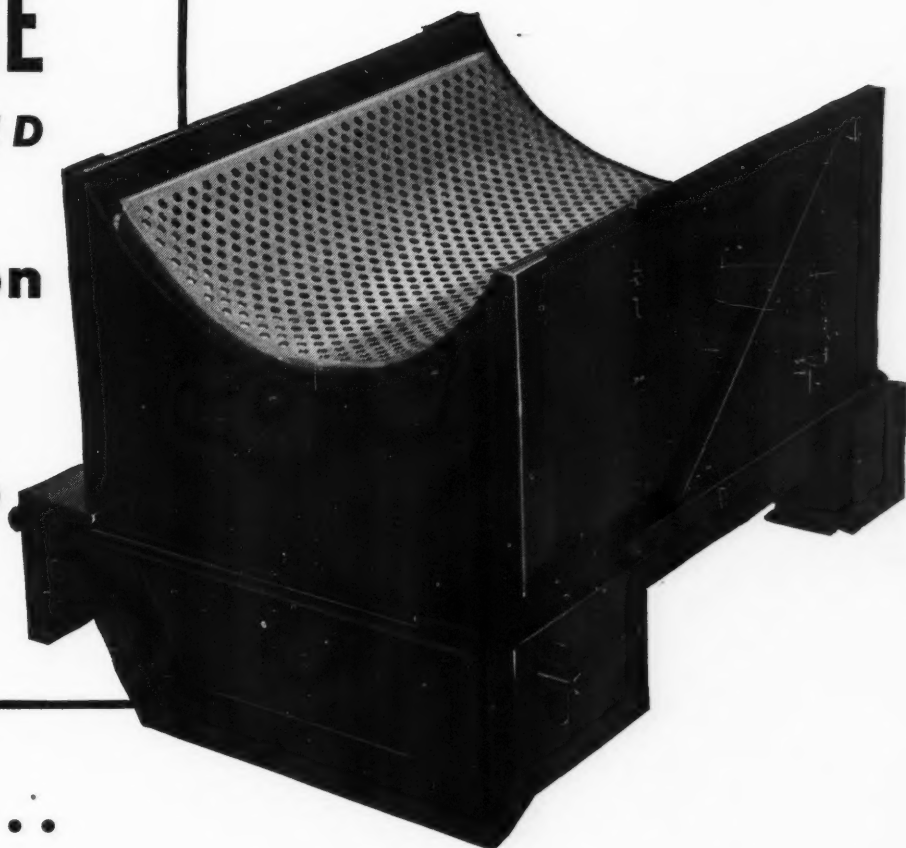
MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1939—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income							
		Freight	Passenger	Total (inc. misc.)	Way and structures	Equip-ment	Traffic			Trans-portion	Total	Operating income	1938	1939			
Chicago, Milwaukee, St. Paul & Pacific.....	May 10,942	\$6,943,549	\$557,431	\$8,347,725	\$1,098,396	\$1,630,107	\$239,435	\$3,237,796	\$7,452,242	89.3	\$895,483	\$193,483	—	\$193,288	—	\$173,210	
Chicago, Rock Island & Pacific.....	5 mos. 10,942	\$3,015,622	2,817,330	5,614,419	6,259,527	8,169,136	1,243,323	16,469,095	33,500,835	84.8	6,223,584	2,461,584	599,157	599,157	—	35,778	
Chicago, Rock Island & Pacific.....	May 7,257	\$4,738,682	\$42,866	\$5,938,980	\$9,474,758	1,167,372	2,166,937	2,360,584	21,311,629	85.1	862,571	396,971	113,657	113,657	—	411,265	
Chicago, Rock Island & Pacific.....	5 mos. 7,257	\$2,845,018	2,859,119	28,038,628	3,608,412	5,917,483	1,160,370	11,693,107	27,374,361	84.7	4,284,322	1,937,679	574,312	574,312	—	1,108,011	
Chicago, Rock Island & Gulf.....	May 627	261,146	24,899	366,113	66,391	35,464	20,647	133,872	281,515	76.9	84,598	59,933	—	—	24,115	—	32,723
Chicago, St. Paul, Minneapolis & Omaha.....	5 mos. 627	1,285,387	129,901	1,839,816	427,879	176,717	105,060	662,222	1,491,271	81.4	342,545	219,818	194,719	194,719	—	60,421	
Chicago, St. Paul, Minneapolis & Omaha.....	May 1,629	2,103,145	100,094	1,403,451	295,079	268,507	379,559	633,623	1,301,814	92.8	101,814	7,488	—	—	105,253	—	42,226
Chicago, St. Paul, Minneapolis & Omaha.....	5 mos. 1,629	\$5,392,822	504,640	6,331,175	749,977	1,296,982	191,989	3,265,841	5,827,650	92.1	503,525	—	545,216	—	—	—	331,048
Clinchfield Railroad.....	May 308	490,282	3,192	499,149	42,545	102,103	18,544	101,078	281,643	56.4	217,506	167,402	172,054	172,054	—	—	—
Colorado & Southern.....	5 mos. 308	2,716,264	14,168	2,758,005	193,890	497,923	95,360	541,966	1,048,995	51.1	1,349,010	1,098,888	1,173,123	1,173,123	—	—	—
Colorado & Southern.....	May 787	462,409	26,552	538,897	62,232	122,371	12,956	201,284	423,351	78.6	115,546	40,352	24,405	24,405	—	—	—
Colorado & Southern.....	5 mos. 794	2,003,792	128,813	2,389,424	234,072	534,118	71,476	988,255	1,957,319	81.9	432,105	46,714	—	—	19,077	—	195,060
Fort Worth & Denver City.....	May 902	411,351	45,307	461,173	60,045	86,202	18,048	174,860	373,357	81.0	87,816	51,014	1,318	1,318	—	—	—
Fort Worth & Denver City.....	5 mos. 902	2,035,584	215,551	2,216,712	279,931	428,392	92,151	862,702	1,829,250	82.5	387,064	202,520	18,703	18,703	—	—	—
Columbus & Greenville.....	May 168	103,557	6,581	110,235	16,834	17,658	4,591	36,866	88,050	75.8	28,185	70,495	19,498	19,498	—	—	—
Columbus & Greenville.....	5 mos. 168	508,331	31,879	571,582	80,467	87,591	23,204	186,889	431,896	75.6	139,686	94,277	85,140	85,140	—	—	—
Delaware & Hudson.....	May 831	1,996,306	67,569	2,145,114	232,117	371,025	43,177	728,145	1,456,920	67.9	688,194	453,515	432,804	432,804	—	—	—
Delaware, Lackawanna & Western.....	5 mos. 831	9,171,244	422,588	9,989,695	955,293	1,706,179	111,463	3,716,933	7,033,779	70.4	2,953,916	2,135,900	2,036,184	2,036,184	—	—	—
Delaware, Lackawanna & Western.....	May 986	3,293,512	551,028	4,297,321	266,885	691,222	219,865	1,942,188	3,156,326	73.4	1,140,995	674,993	637,193	637,193	—	—	—
Delaware, Lackawanna & Western.....	5 mos. 986	15,656,360	2,668,605	20,456,907	1,129,225	3,862,817	569,115	9,507,353	15,795,091	77.2	4,661,816	2,485,816	2,140,305	2,140,305	—	—	—
Denver & Rio Grande Western.....	May 2,555	1,625,888	79,292	1,822,738	515,483	68,271	68,271	665,791	1,761,281	96.7	61,457	—	135,044	—	—	—	—
Denver & Rio Grande Western.....	5 mos. 2,560	7,833,556	450,876	8,765,546	1,515,866	2,377,739	332,680	3,289,785	7,894,762	90.1	870,784	—	108,486	—	—	—	—
Denver & Salt Lake.....	May 232	95,475	3,992	108,248	46,931	43,315	2,435	41,780	143,129	132.2	123,112	—	64,705	—	—	—	—
Denver & Salt Lake.....	5 mos. 232	777,120	28,601	848,895	146,720	233,220	12,599	284,408	725,783	85.5	123,112	—	25,411	—	—	—	—
Detroit & Mackinac.....	May 242	62,284	1,877	71,626	14,406	13,122	863	24,847	56,684	79.1	14,942	7,319	3,430	3,430	—	—	—
Detroit & Mackinac.....	5 mos. 242	233,995	12,995	288,926	44,244	62,381	4,779	119,168	246,306	85.3	42,620	22,569	2,823	2,823	—	—	—
Detroit & Toledo Shore Line.....	May 50	150,450	.....	150,450	36,266	21,831	8,529	60,143	134,311	88.1	18,508	3,004	—	—	—	—	—
Detroit & Toledo Shore Line.....	5 mos. 50	1,338,253	.....	1,344,261	133,637	108,120	45,036	443,406	769,341	57.2	574,920	425,312	182,221	182,221	—	—	—
Detroit, Toledo & Ironton.....	May 472	433,540	163	459,993	49,095	86,491	12,355	128,491	295,525	64.2	164,468	115,906	105,167	105,167	—	—	—
Detroit, Toledo & Ironton.....	5 mos. 472	2,643,036	874	2,767,634	278,574	434,226	61,850	658,128	1,528,886	55.2	1,238,748	940,171	833,207	833,207	—	—	—
Duluth, Missabe & Iron Range.....	May 540	1,538,798	1,262	1,801,136	201,566	228,664	4,119	307,171	779,226	43.3	1,021,910	757,282	758,109	758,109	—	—	—
Duluth, Missabe & Iron Range.....	5 mos. 540	1,953,322	7,271	2,285,903	705,184	1,139,879	21,731	919,163	2,958,178	129.4	—	—	—	—	—	—	—
Duluth, Winnipeg & Pacific.....	May 175	91,356	1,039	94,600	25,168	15,832	2,293	43,718	91,350	96.6	3,250	—	—	—	—	—	—
Duluth, Winnipeg & Pacific.....	5 mos. 175	511,673	6,147	504,564	104,908	95,172	11,190	239,558	471,436	88.9	59,128	16,681	—	—	—	—	—
Duluth, Winnipeg & Pacific.....	May 390	948,335	.....	948,335	63,096	288,467	15,118	475,039	979,322	78.0	133,061	25,741	—	—	—	—	—
Duluth, Winnipeg & Pacific.....	5 mos. 390	5,854,436	.....	5,854,436	693,220	1,405,111	75,090	2,557,137	4,919,720	84.0	1,731,631	1,105,329	863,022	863,022	—	—	—
Erie.....	May 2,290	5,324,532	379,218	6,204,877	661,058	1,228,799	179,412	2,504,234	4,828,636	77.8	1,376,241	802,298	559,272	559,272	—	—	—
Erie.....	5 mos. 2,290	26,647,631	1,844,650	30,698,151	2,641,988	6,397,074	856,409	12,189,531	23,341,421	76.0	7,356,247	4,512,523	3,882,417	3,882,417	—	—	—
Erie.....	May 146	241,974	19,420	271,625	19,578	29,868	3,330	102,665	168,800	62.1	102,819	68,785	34,830	34,830	—	—	—
Erie.....	5 mos. 146	1,174,900	92,501	1,325,982	90,001	132,606	16,312	530,492	827,631	62.4	498,351	328,425	144,794	144,794	—	—	—
Florida East Coast.....	May 685	520,456	109,576	715,375	116,569	141,388	23,589	235,676	562,831	78.7	152,544	72,754	7,843	7,843	—	—	—
Florida East Coast.....	5 mos. 685	3,147,666	1,694,235	5,387,364	498,455	728,819	123,581	1,644,206	3,321,071	61.6	2,066,293	1,653,541	1,284,902	1,284,902	—	—	—
Georgia Railroad.....	May 329	263,711	9,794	302,085	37,700	55,818	18,496	133,280	260,434	86.2	41,651	23,402	35,846	35,846	—	—	—
Georgia Railroad.....	5 mos. 329	1,276,151	51,954	1,455,350	167,350	259,099	92,702	640,827	1,231,172	84.6	224,378	145,975	206,007	206,007	—	—	—
Georgia & Florida.....	May 408	74,111	1,575	80,103	14,364	16,901	8,345	34,657	78,979	98.6	1,124	—	—	—	—	—	—
Georgia & Florida.....	5 mos. 408	387,323	7,085	414,516	93,567	82,697	14,611	176,792	420,428	101.4	—	—	—	—	—	—	—
Grand Trunk Western.....	May 1,029	1,480,710	75,448	1,674,311	221,479	361,701	42,646	712,143	1,419,990	84.8	254,321	129,988	54,807	54,807	—	—	—
Grand Trunk Western.....	5 mos. 1,031	7,751,862	354,961	8,719,503	1,070,923	1,907,451	207,389	3,782,086	7,342,507	84.2	1,376,996	753,929	385,656	385,656	—	—	—
Canadian National Lines in New England.....	May 172	80,423	2,826	94,549	35,256	19,003	2,918	74,715	136,714	144.6	—	—	—	—	—	—	—
Canadian National Lines in New England.....	5 mos. 172	463,472	17,682	534,126	146,236	91,446	21,466	341,860	618,415	112.0	—	—	—	—	—	—	—
Great Northern.....	May 8,072	6,626,479	337,169	7,326,001	7,555,001	1,141,141	2,270,178	2,259,446	5,195,580	68.9	2,359,421	1,637,055	1,512,813	1,512,813	—	—	—
Great Northern.....	5 mos. 8,072	24,774,122	1,526,661	28,638,364	3,508,599	6,322,756	976,676	10,863,665	22,943,137	80.1	5,695,227	2,231,278	1,577,091	1,577,091	—	—	—
Green Bay & Western.....	May 234	137,409	287	142,381	23,917	17,473	6,487	44,468	97,046	68.1	45,335	31,571	23,270	23,270	—	—	—
Green Bay & Western.....	5 mos. 234	661,990	1,580	685,412	112,286	77,430	32,969	232,530	478,567	69.8	206,861	141,753	100,705	100,705	—	—	—



**MILEAGE**  
**INCREASED**

**Lubrication**  
**COST**  
**DECREASED**



**with this . . .**

## **NEW LIGHT-WEIGHT REVERSIBLE CELLAR**

The reversible cellar of the new Franklin No. 8 Combined Lubricator & Spreader weighs less than half of the old cast steel cellar, costs less and induces better maintenance. » » » By reversing, tapered grease cakes may be fully consumed, thus increasing mileage and decreasing the cost of lubrication. Jaws of the driving box cannot close and

pinch the cellar. This results in the cellar having proper clearance in the box at all times. The hub end wall, which is integral with the spreader, brings the perforated plate closer to the hub and provides better hub lubrication. » » » Specify the Franklin No. 8 Combined Lubricator & Spreader for replacements or for new power.



**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

**NEW YORK**

**CHICAGO**

**MONTREAL**

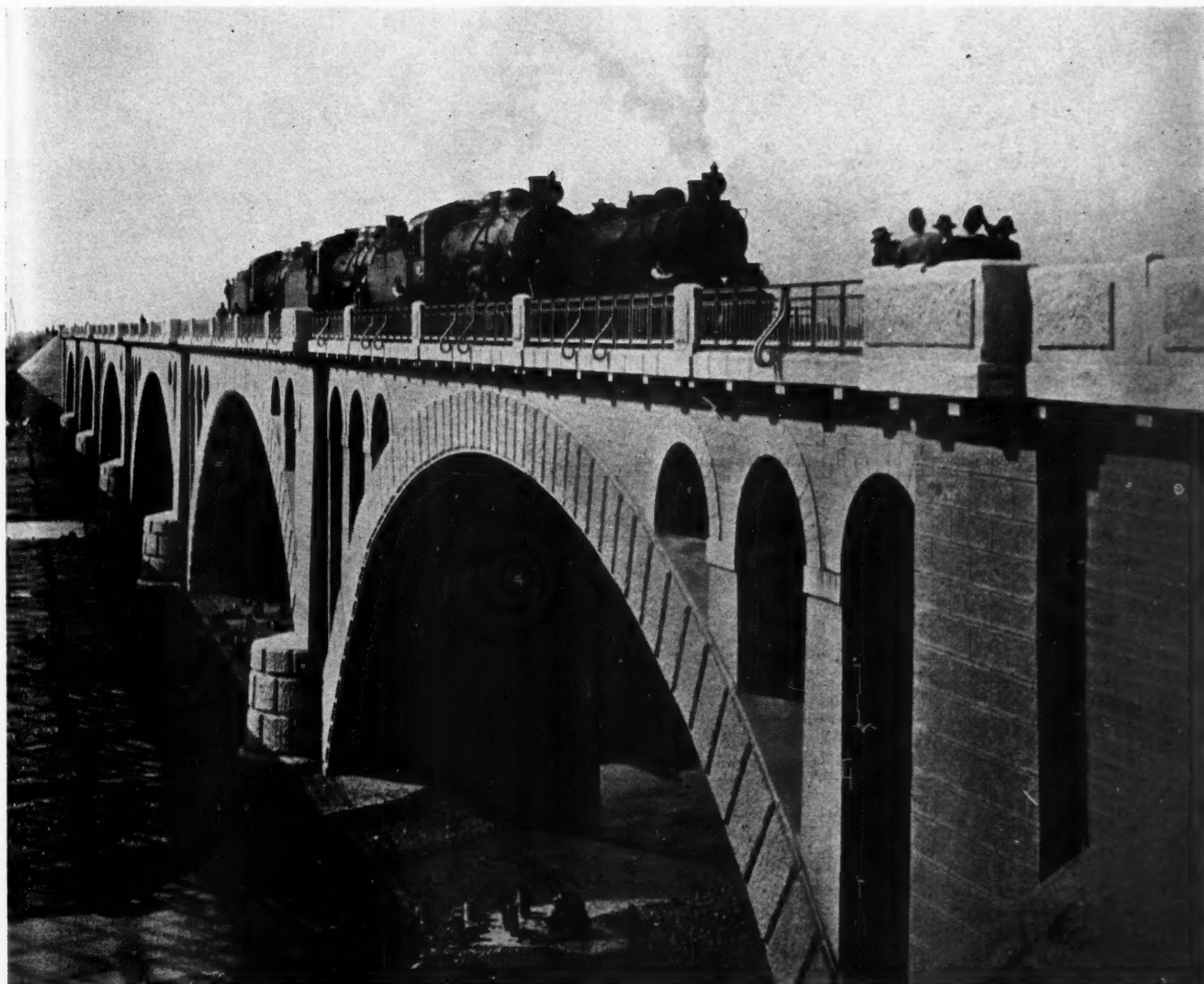
## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1939—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation		Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Way and structures	Equip-ment	Traffic		Operating income	Net from operation	1939	1938
Gulf & Ship Island.....	259	\$94,469	\$2,369	\$106,656	\$23,951	\$18,530	\$2,455	89.4	\$95,374	\$11,282	—\$5,663	—\$14,530
May.....	259	442,818	17,859	509,007	102,648	88,913	12,134	91.2	464,150	44,857	—39,414	—83,941
Gulf, Mobile & Northern.....	824	521,502	18,020	561,943	71,162	81,188	150,919	67.0	376,355	185,588	138,588	100,629
May.....	824	2,513,865	88,417	2,716,756	343,389	409,214	197,911	68.5	1,859,799	856,957	621,957	433,574
Illinois Central.....	4,949	6,030,307	661,107	7,441,457	847,743	1,689,475	198,733	80.5	5,987,347	1,454,110	741,853	633,952
May.....	4,949	31,189,072	3,679,716	38,222,212	3,871,420	8,239,824	926,007	77.7	29,700,828	8,521,384	5,007,834	4,590,520
Yazoo & Mississippi Valley.....	1,619	1,042,022	11,365	1,053,387	110,902	64,650	30,766	77.1	443,734	382,870	243,662	188,486
May.....	1,619	4,923,896	264,124	5,584,485	577,593	844,813	145,896	73.1	1,503,875	1,503,875	813,906	515,087
Illinois Central System.....	6,568	7,072,329	712,472	8,617,701	958,645	1,854,125	229,499	78.7	6,781,101	1,836,600	983,460	831,352
May.....	6,568	36,112,968	3,943,840	43,806,697	4,449,013	9,084,637	1,071,903	77.1	33,781,438	10,025,259	5,811,488	5,152,672
Illinois Terminal.....	490	372,708	60,217	479,280	53,948	68,569	16,213	66.07	316,646	162,634	117,533	98,847
May.....	490	1,763,053	292,534	2,251,246	243,391	354,681	81,302	70.64	1,590,291	660,955	449,818	368,754
Kansas City Southern.....	879	897,113	19,963	1,046,769	100,482	157,489	55,535	65.6	686,943	359,826	260,826	214,745
May.....	879	4,582,569	81,269	5,229,944	458,294	771,729	1,548,458	63.6	1,410,032	1,905,032	1,193,841	1,205,457
Kansas, Oklahoma & Gulf.....	327	230,761	352	233,535	35,535	18,886	8,862	48.7	113,710	119,825	99,444	81,279
May.....	327	1,083,877	1,744	1,099,091	146,931	90,284	44,831	49.2	540,655	558,436	456,752	365,491
Lake Superior & Ishpeming.....	156	230,339	42	281,206	32,983	18,687	554	35.8	100,569	180,637	91,813	90,694
May.....	156	333,698	311	391,046	105,028	95,787	3,259	92.7	362,619	28,427	—150,360	—154,324
Lehigh & Hudson River.....	96	126,487	60	127,266	13,150	18,847	3,458	69.1	87,932	39,334	24,682	12,990
May.....	96	641,525	339	645,720	50,756	105,275	18,218	66.7	430,681	214,539	137,980	82,812
Lehigh & New England.....	200	410,292	.....	413,464	39,937	62,221	6,548	57.5	237,744	175,720	133,825	134,507
May.....	200	1,658,739	.....	1,670,404	148,477	289,302	33,799	64.6	1,078,263	592,141	437,982	473,894
Lehigh Valley.....	1,283	3,566,907	164,281	3,960,776	248,434	706,954	117,740	71.8	2,843,949	1,116,827	856,983	677,291
May.....	1,283	16,819,339	803,316	18,741,272	1,036,995	3,310,017	550,888	71.9	13,477,685	5,263,587	3,927,420	2,959,344
Louisiana & Arkansas.....	606	468,807	8,635	499,759	68,307	75,081	32,305	66.0	329,852	169,907	127,963	100,902
May.....	606	2,282,550	37,004	2,422,710	324,501	362,275	136,480	66.1	1,602,083	820,627	608,299	483,992
Louisiana, Arkansas & Texas.....	240	94,204	.....	94,204	30,701	8,562	3,787	81.1	78,818	18,500	15,013	4,775
May.....	240	441,164	.....	441,164	108,822	54,663	23,787	80.7	370,453	88,404	65,659	4,448
Louisville & Nashville.....	4,908	5,373,057	431,293	6,365,534	742,725	1,322,307	171,194	75.3	4,790,760	1,574,774	1,002,092	853,375
May.....	4,908	28,317,590	3,343,949	37,514,400	4,747,400	7,674,602	1,201,002	77.1	25,706,933	7,635,916	4,553,870	4,413,867
Maine Central.....	990	815,521	67,415	977,080	165,106	165,967	14,398	75.4	736,938	240,142	174,104	139,487
May.....	999	4,336,977	338,547	5,116,705	770,358	874,019	1,857,396	73.0	3,239,358	1,383,847	1,048,788	775,725
Midland Valley.....	352	95,270	1	96,750	14,847	10,554	2,542	62.3	60,302	36,448	24,362	19,015
May.....	352	510,982	8	518,434	59,125	42,164	13,109	56.2	291,429	227,005	168,884	135,699
Minneapolis & St. Louis.....	1,524	710,231	8,418	755,247	142,309	126,822	45,370	82.1	620,111	135,136	88,699	64,929
May.....	1,524	3,169,044	39,623	3,381,469	472,082	609,076	233,554	83.3	2,817,503	563,966	345,930	158,220
Minneapolis, St. Paul & Sault Ste. Marie.....	4,290	2,018,177	76,163	2,273,128	463,835	375,520	67,034	83.6	1,899,980	373,148	220,654	130,544
May.....	4,290	8,009,262	338,177	9,409,195	1,601,452	1,940,114	313,022	93.0	7,499,269	639,926	—187,748	—663,666
Duluth, South Shore & Atlantic.....	550	166,102	8,887	196,992	39,855	43,304	5,288	90.4	178,100	18,892	4,423	—12,837
May.....	550	612,024	45,965	729,971	161,353	180,738	26,953	108.7	793,266	—63,295	—134,608	—157,585
Spokane International.....	152	55,947	706	62,884	24,190	7,887	2,105	97.0	60,974	1,910	—3,287	—11,386
May.....	152	261,169	4,322	298,174	68,641	34,026	10,180	84.4	248,584	49,590	34,028	21,445
Mississippi Central.....	150	62,459	1,538	66,247	25,117	11,833	7,205	102.1	67,841	—1,414	—6,243	—7,673
May.....	150	306,511	7,366	325,147	99,934	48,536	35,328	94.4	306,921	18,226	—5,683	—16,483
Missouri & Arkansas.....	365	80,429	1,601	87,406	19,081	7,869	6,558	76.6	66,930	20,476	16,605	8,303
May.....	365	385,437	7,307	427,339	103,412	47,794	30,976	81.8	349,517	77,822	58,588	21,654
Missouri-Illinois.....	193	188,516	1,811	190,678	26,259	13,793	3,329	51.7	92,061	92,061	75,370	55,370
May.....	193	809,277	1,811	819,447	111,203	76,179	15,141	56.5	463,327	356,120	294,077	204,893
Missouri-Kansas-Texas Lines.....	3,294	1,819,360	168,438	2,226,966	331,721	391,652	113,360	83.3	1,854,480	372,486	201,371	4,668
May.....	3,294	8,986,722	813,438	10,941,633	1,608,622	1,973,617	554,412	83.8	9,164,439	1,777,194	954,523	49,169
Missouri Pacific.....	7,173	5,417,021	300,020	6,455,740	2,421,287	1,336,242	241,042	81.4	5,254,513	1,201,227	701,562	287,907
May.....	7,173	26,840,912	1,912,868	31,672,247	4,549,642	6,674,687	1,171,927	82.0	25,971,483	5,700,764	3,270,812	1,377,295
Gulf Coast Lines.....	1,759	1,253,133	35,381	1,357,929	204,025	207,794	44,343	67.67	918,863	439,066	366,024	237,470
May.....	1,759	7,016,345	182,609	7,534,954	998,009	998,774	224,809	60.00	4,520,950	3,014,004	2,650,093	1,762,456

Continued on next left-hand page





## BUZAU BRIDGE ROUMANIA

The Buzau Bridge, situated on the double-tracked Buzau-Marasesti trunk route of the Roumanian State Railways, is a fine example of modern masonry construction. It consists of six arches each of approximately 100 ft. span, with a height in the center, at rail level, of approximately 35 ft. This photograph was taken as the bridge was undergoing loading tests before final opening to traffic. \* \* \* The Security Sectional Arch has been tested by time and has proved to be a

most effective means of fuel conservation. While the fundamental design is unchanged, it has been continuously developed by American Arch Company in keeping with the progress in locomotive design and is today an essential factor in the economical operation of modern steam motive power.

\* \* \* \* \*

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

**HARBISON-WALKER  
REFRACTORIES CO.**

*Refractory Specialists*



**AMERICAN ARCH CO.  
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

*Locomotive Combustion  
Specialists*

## REVENUES AND EXPENSES OF RAILWAYS

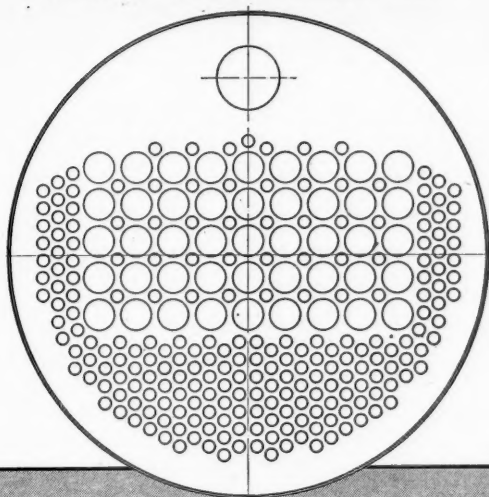
MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1939—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income			
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Traffic	Trans- portation			Total	Operating income	1939	1938
International Great Northern.....	1,155	\$753,849	\$60,620	\$918,412	\$152,040	\$29,814	\$393,129	\$803,940	87.5	\$114,472	\$56,019	\$19,301	\$79,956
Mobile & Ohio.....	1,155	3,830,730	325,913	4,156,643	757,964	152,386	2,062,367	4,200,678	70.0	465,302	170,000	303,787	291,267
Montgomery.....	1,180	950,689	24,367	975,056	183,223	43,237	351,961	798,218	77.3	235,065	170,903	94,669	78,610
Montongahela.....	1,180	4,462,906	113,045	4,575,951	735,641	216,167	1,737,806	3,842,937	79.8	972,716	657,696	280,978	285,812
Montour.....	172	176,326	650	176,976	23,576	442	50,539	89,748	50.1	89,400	64,196	14,703	71,437
Nashville, Chattanooga & St. Louis.....	1,111	1,243,379	2,916	1,255,189	140,732	2,493	317,787	590,535	47.0	664,654	533,328	248,317	217,124
Nevada Northern.....	56	84,617	.....	84,831	7,496	922	22,902	69,447	81.9	15,384	5,997	14,914	31,687
New York Central.....	1,111	5,028,287	479,911	5,508,198	661,215	1,190,991	2,346,919	4,808,461	78.5	1,391,757	998,151	826,536	539,545
Pittsburgh & Lake Erie.....	165	46,827	1,730	48,557	7,645	2,594	9,423	23,942	48.4	27,651	15,035	17,866	15,168
New York, Chicago & St. Louis.....	1,704	2,994,800	67,700	3,062,500	363,285	119,640	1,190,826	2,259,397	71.3	911,119	704,407	431,457	224,544
New York, New Haven & Hartford.....	1,704	15,294,520	313,137	15,607,657	1,714,100	2,496,758	6,031,811	12,208,373	70.9	4,686,282	3,669,307	2,297,917	891,285
New York, New Haven & Hartford.....	1,877	4,030,982	2,151,049	6,182,031	1,048,609	1,737,247	2,583,910	5,296,790	77.1	1,570,565	1,055,565	440,744	351,832
New York, New Haven & Hartford.....	1,881	18,861,234	10,589,463	29,450,697	3,951,032	5,576,598	12,816,425	24,676,454	75.1	8,182,336	5,607,336	2,539,526	556,515
New York Connecting.....	21	175,139	.....	175,139	42,012	10,214	.....	88,523	47.2	98,933	58,612	54,728	43,989
New York, Ontario & Western.....	576	514,033	12,652	526,685	63,651	115,135	19,226	506,728	89.1	61,714	8,535	31,662	56,382
Norfolk & Western.....	2,191	4,790,904	134,489	4,925,393	656,053	137,556	1,466,816	3,724,003	72.5	1,415,122	665,888	729,742	986,449
Norfolk Southern.....	2,191	28,290,650	695,400	28,986,050	3,393,933	6,952,297	7,820,585	19,787,613	65.9	10,255,090	6,087,494	6,897,994	4,228,403
Norfolk Southern.....	805	318,942	2,819	321,761	75,175	24,961	143,375	308,233	91.2	29,710	3,469	22,334	20,889
Norfolk Southern.....	805	1,609,831	13,929	1,623,760	358,208	267,213	676,720	1,508,930	88.7	191,798	30,517	45,400	47,896
Northern Pacific.....	6,721	4,682,718	256,900	4,939,618	1,011,226	199,396	1,897,162	4,483,122	83.3	901,241	325,438	590,991	161,004
Northern Pacific.....	6,721	19,263,235	1,265,699	20,528,934	3,331,301	867,638	9,227,321	20,488,816	89.2	2,437,066	1,027,826	1,027,826	440,125
Northwestern Pacific.....	352	208,612	54,284	262,896	56,974	3,201	162,270	382,792	98.7	3,825	14,125	24,311	35,546
Northwestern Pacific.....	352	825,275	247,939	1,073,214	278,217	16,425	737,989	1,330,541	111.0	131,701	219,794	263,721	658,546
Oklahoma City-Ada-Atoka.....	132	32,507	343	32,850	6,757	755	10,858	21,562	62.3	13,032	10,288	5,911	2,749
Pennsylvania.....	132	148,114	1,393	149,507	30,542	3,959	52,535	102,482	64.5	56,490	42,315	26,330	15,184
Pennsylvania.....	10,289	22,157,922	5,496,244	27,654,166	3,326,706	714,495	12,047,598	23,053,285	75.1	7,634,731	4,076,679	3,501,032	3,384,449
Pennsylvania.....	10,289	113,709,712	27,740,482	141,450,194	16,570,714	3,385,268	59,329,575	116,574,191	74.8	39,197,193	23,646,824	20,944,198	14,494,407
Long Island.....	383	590,703	1,579,948	2,170,651	213,070	10,980	1,092,989	1,694,640	74.6	575,542	234,650	56,907	30,121
Pennsylvania-Reading Seashore Lines.....	383	2,849,095	6,250,633	9,100,728	1,097,206	42,707	4,898,314	8,003,293	83.8	1,547,376	329,929	535,209	388,387
Pennsylvania-Reading Seashore Lines.....	412	261,171	142,056	403,227	76,935	9,932	322,407	520,475	123.1	97,680	182,289	255,562	206,981
Pennsylvania-Reading Seashore Lines.....	412	1,214,464	533,821	1,748,285	374,607	32,296	1,386,706	2,272,475	123.7	434,882	825,250	1,145,580	1,104,555
Pere Marquette.....	2,115	1,989,873	62,891	2,052,764	329,133	489,995	65,424	1,886,452	86.6	292,696	129,923	25,047	67,538
Pittsburgh & Shawmut.....	2,115	10,550,510	338,791	10,889,301	1,527,959	313,499	4,605,905	9,468,167	82.6	1,994,160	1,216,760	704,435	564,435
Pittsburgh & Shawmut.....	101	26,320	.....	26,320	6,385	1,456	11,177	35,075	131.4	8,372	10,287	8,372	2,467
Pittsburgh & Shawmut.....	101	210,496	.....	210,496	31,631	7,582	74,630	214,130	100.8	1,719	11,078	16,443	31,541
Pittsburgh & West Virginia.....	136	187,857	.....	187,857	30,347	11,094	50,639	165,197	81.3	37,941	15,766	11,817	30,466
Pittsburgh, Shawmut & Northern.....	136	1,111,073	84	1,111,157	155,368	72,907	292,732	898,269	75.3	295,016	180,844	206,587	200,713
Pittsburgh, Shawmut & Northern.....	190	51,264	.....	51,884	17,196	718	20,430	53,842	103.8	1,958	6,274	13,285	1,204
Pittsburgh, Shawmut & Northern.....	190	356,325	.....	359,831	58,667	4,739	126,261	276,091	76.8	83,740	60,271	23,759	11,643
Reading.....	1,450	3,992,822	273,766	4,266,588	371,286	71,048	1,899,480	3,209,909	71.9	1,253,667	919,606	947,193	976,760
Richmond, Fredericksburg & Potomac.....	1,450	19,614,846	1,373,312	20,988,158	1,701,635	353,194	9,109,356	16,032,351	72.9	5,946,866	4,286,625	4,160,073	3,055,203
Richmond, Fredericksburg & Potomac.....	118	460,666	147,358	608,024	96,604	8,881	255,643	350,294	75.7	176,568	121,786	60,724	23,493
Richmond, Fredericksburg & Potomac.....	118	2,046,777	1,254,102	3,300,879	349,608	47,422	1,491,394	2,849,627	73.0	1,055,631	752,082	400,666	185,981
Rutland.....	407	211,461	21,517	232,978	38,289	11,038	172,235	288,651	95.6	13,290	4,037	6,908	37,423
Rutland.....	407	940,433	133,068	1,073,501	175,268	50,444	775,608	1,337,253	98.8	16,498	81,037	88,804	329,002

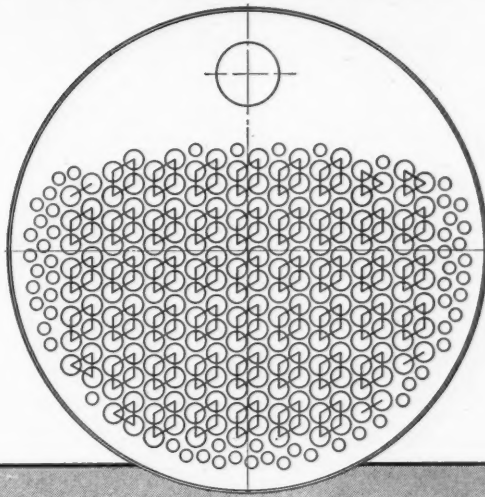
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Type "A" Superheater Equipped Boiler.



Type "E" Superheater Equipped Boiler.



## More Evaporative Surface

when the boiler has an Elesco Type "E" Superheater

The tube and flue heating surfaces of a given boiler equipped with a Type "A" superheater are 4,200 sq. ft.

The tube and flue heating surfaces of the same boiler equipped with a Type "E" superheater are 4,641 sq. ft.

The Elesco Type "E" superheater equipped boiler provides an increase of 441 sq. ft.

*Be sure your new power is equipped with Elesco Type "E" superheaters for high sustained boiler capacity.*



A-1331

## THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.

60 East 42nd Street, NEW YORK

122 S. Michigan Ave., CHICAGO

Canada: THE SUPERHEATER COMPANY, LTD., MONTREAL

Superheaters « Exhaust Steam Injectors « Feedwater Heaters « American Throttles « Pyrometers « Steam Dryers

## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1939—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Traffic	Trans- portation			1939	1938
St. Louis-San Francisco.....	4,843	\$3,075,514	\$266,863	\$3,342,377	\$574,063	\$120,827	\$1,445,939	87.4	\$450,408	\$92,796	\$217,740
St. Louis, May.....	4,843	14,329,112	1,252,483	17,168,234	2,802,750	588,219	6,925,107	90.8	1,646,669	20,738	892,525
St. Louis, 5 mos.....	267	114,871	608	122,742	24,519	8,165	53,737	87.4	14,692	4,338	31,011
St. Louis, San Francisco & Texas.....	267	548,769	2,472	581,559	119,434	40,373	263,664	88.0	54,162	11,826	13,645
St. Louis, May.....	1,690	1,436,773	23,855	1,529,961	324,312	84,381	512,558	84.3	239,938	—2,435	203,273
St. Louis, 5 mos.....	1,699	7,347,183	109,555	7,767,785	1,182,407	417,111	2,591,611	87.8	1,727,608	486,434	451,646
Seaboard Air Line.....	4,317	2,935,860	364,576	3,632,737	618,917	159,330	1,359,294	84.5	561,423	141,950	98,952
St. Louis, May.....	4,317	14,539,273	3,262,334	19,671,956	2,673,388	867,768	7,218,861	79.2	4,096,363	1,645,761	1,179,201
Southern Railway.....	6,574	6,179,287	611,131	7,515,839	965,142	157,561	2,731,181	74.2	1,935,644	1,099,324	797,591
Alabama Great Southern.....	6,586	31,523,878	3,284,815	38,229,719	4,888,783	768,370	13,757,337	72.2	10,634,483	6,150,946	2,962,240
Alabama, May.....	315	5,530,806	191,856	6,172,222	88,026	12,776	179,184	67.7	199,408	144,085	65,228
Alabama, 5 mos.....	315	25,924,516	3,000,019	30,000,019	417,598	62,286	2,128,859	71.0	871,160	546,445	343,591
Cincinnati, New Orleans & Texas Pacific.....	337	1,291,555	60,375	1,438,143	184,382	30,273	373,802	63.1	529,977	384,671	275,655
Georgia Southern & Florida.....	337	6,301,391	493,917	7,228,362	912,510	141,587	1,884,901	63.0	2,677,839	1,965,016	1,285,104
Georgia, May.....	398	140,578	20,947	179,955	32,628	2,000	81,020	87.5	22,419	6,190	23,783
Georgia, 5 mos.....	398	678,373	254,881	1,039,657	160,121	8,507	433,714	78.7	221,320	139,652	14,672
New Orleans & Northeastern.....	204	211,033	13,601	245,425	32,290	5,875	74,755	63.8	88,775	57,365	32,114
Northern Alabama.....	204	1,031,302	69,785	1,195,617	158,542	27,358	364,851	65.7	410,291	255,277	142,696
Northern, May.....	100	38,725	999	41,724	9,445	1,220	14,213	67.5	13,573	7,702	564
Northern, 5 mos.....	100	245,377	4,611	258,978	56,303	5,015	81,490	61.2	100,554	71,600	30,715
Southern Pacific.....	8,658	10,431,732	1,800,393	13,441,846	1,307,772	397,766	4,952,778	73.5	3,562,753	2,387,410	1,600,793
Southern Pacific Steamship Lines.....	8,657	47,430,332	7,789,510	60,177,990	6,479,396	1,776,609	23,413,429	77.7	13,524,923	7,661,791	4,458,569
Southern, May.....	....	2,693,897	130,467	2,969,607	617,827	91,105	1,988,159	92.6	218,338	138,798	34,762
Southern, 5 mos.....	....	13,021,004	264,263	13,285,267	1,546,494	413,338	5,462,778	75.8	866,519	573,434	335,460
Texas & New Orleans.....	4,416	14,830,514	1,266,801	17,330,553	2,626,598	626,132	6,043,711	75.7	4,260,661	2,774,026	1,640,059
Spokane, Portland & Seattle.....	948	645,641	33,082	725,617	249,409	99,963	260,342	88.0	88,027	12,361	45,466
Texas & New Orleans, May.....	948	2,871,747	145,819	3,283,705	716,639	48,451	1,220,410	78.3	711,602	344,927	101,012
Tennessee Central.....	286	166,129	3,889	183,179	37,009	6,707	65,968	82.0	32,890	20,789	2,959
Texas & Pacific.....	286	871,849	19,862	951,478	170,249	31,840	347,446	79.0	199,425	138,999	55,011
Texas, May.....	1,936	1,689,124	174,478	2,044,520	227,216	73,406	677,310	73.5	542,021	390,955	307,510
Texas, 5 mos.....	1,936	8,767,995	880,927	10,521,607	1,160,737	360,130	3,431,676	72.0	2,940,916	2,181,737	1,636,235
Texas Mexican.....	162	88,395	299	101,626	11,327	3,090	33,744	64.4	36,189	30,254	22,984
Toledo, Peoria & Western.....	162	385,172	2,296	446,295	56,400	15,058	166,714	72.7	121,787	92,041	71,159
Toledo, May.....	239	172,834	....	172,834	47,311	13,364	40,935	75.4	43,015	30,190	15,796
Toledo, 5 mos.....	239	828,424	58	839,631	186,057	80,217	203,247	70.7	245,733	167,794	100,298
Union Pacific System.....	9,899	10,263,295	1,365,092	12,784,703	1,483,337	512,977	4,364,313	76.8	2,962,877	1,656,819	875,208
Utah.....	9,902	47,737,870	6,005,267	59,008,461	5,566,465	2,112,604	21,496,779	76.4	13,945,933	7,484,173	4,052,519
Utah, May.....	111	25,377	....	25,377	9,367	573	8,706	126.7	—6,810	—11,261	—3,788
Utah, 5 mos.....	111	310,134	....	311,279	45,009	2,226	87,160	84.2	49,211	2,912	17,703
Virginian.....	638	1,177,661	2,009	1,206,520	122,422	22,675	176,965	55.7	534,220	359,220	397,371
Wabash.....	638	7,222,775	12,607	7,420,497	727,960	115,532	3,867,382	52.1	3,553,115	2,634,115	2,769,063
Wabash, May.....	2,410	3,082,633	184,968	3,517,806	540,549	153,106	1,405,761	81.5	651,105	431,687	96,931
Wabash, 5 mos.....	2,410	15,195,853	923,307	17,351,520	2,209,283	738,286	7,122,253	80.4	3,402,122	2,312,543	506,538
Ann Arbor.....	294	269,236	2,379	283,483	29,879	13,044	134,715	89.0	31,207	9,070	11,734
Western Maryland.....	294	1,452,078	11,348	1,506,381	334,199	729,203	1,331,929	88.4	174,452	69,889	50,488
Western, May.....	878	975,502	5,353	1,015,672	91,783	382,058	768,373	75.7	247,299	173,299	131,330
Western, 5 mos.....	878	5,700,706	28,179	5,917,883	657,831	195,529	1,756,911	71.2	1,706,829	1,356,829	1,214,226
Western Pacific.....	1,208	1,225,771	34,661	1,299,094	285,205	60,686	501,420	89.2	139,963	54,638	17,644
Wheeling & Lake Erie.....	1,208	5,400,253	133,738	5,658,879	985,879	290,330	2,350,907	90.6	530,801	118,224	182,534
Wheeling, May.....	508	825,923	Dr. 2	865,338	36,064	300,520	693,079	80.1	172,259	68,466	86,072
Wheeling, 5 mos.....	508	4,683,492	....	4,865,196	559,975	177,365	1,624,924	74.4	1,245,448	663,603	375,141